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AUTHOR Funkhouser, Janie E.; Morrison, Donna Ruane
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ABSTRACT

Historically, Congress has maintained an interest in encouraging State Compensatory Education (SCE) programs that are similar in purpose to Chapter 1. To date, no nationally respresentative data have been reported regarding the prevalence and nature of SCE programs in schools. In an effort to address this situation, this report synthesizes findings from the National Assessment of Chapter 1 studies. The report provides recent, nationally representative data that bear on the following questions: (1) How are districts and schools selected to operate SCE programs? (2) What is the distribution of SCE programs in Chapter 1 and non-Chapter 1 schools, and in schools with varying levels of poverty? (3) What within-school selection practices are used to determine which grades and students are served by SCE? (4) What services do SCE programs provide? and (5) How do these services compare with Chapter 1 services? Several surveys and studies conducted for the National Assessment of Chapter 1, including the School Survey, the District Survey, the Targeting Study, the Resource Allocation Study, and the Program Design Study, provide the basic data for the report. Appendix A lists states included in the samples of SCE school principals and teachers. Appendix B describes school and district survey samples and standard error calculations. Also included are support tables for figures and tables in the report and a list of standard errors for 38 text citations that do not appear in tables. (RH)

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A National Profile of State Compensatory Education in Public Elementary Schools: A Substudy of the National Assessment of Chapter 1

Janie E. Funkhouser
Lonna Ruane Morrison

November 1988

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PREFACE

The National Assessment of Chapter 1 was mandated by Congress in December, 1983. The mandate, included in the Technical Amendments to the Education Consolidation and Improvement Act (ECIA) of 1981, required the National Institute of Education (NIE)[1] to conduct independent studies and analyses, and to report the findings to Congress. The final report, entitled *The Current Operation of the Chapter 1 Program*, addresses a broad range of topics regarding Chapter 1 programs nationwide, and presents data from surveys and case study interviews in school districts and States conducted specifically for the National Assessment. As part of that effort, data were also gathered on State Compensatory Education (SCE) programs, through both surveys of school principals and SCE teachers as well as through case study interviews.

Historically, Congress has maintained an interest in encouraging SCE programs that are similar in purpose to Chapter 1. To date, no nationally representative data have been reported regarding the prevalence and nature of SCE programs in schools. This report, while not exhaustive, addresses these issues by synthesizing findings from the National Assessment of Chapter 1 studies.

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[1]On October 1, 1985, NIE was reorganized into the Office of Educational Research and Improvement (OERI) within the U.S. Department of Education (ED).

EXECUTIVE SUMMARY

State Compensatory Education (SCE) programs, like their federal counterpart, Chapter 1, are intended to assist low achieving students. Unlike Chapter 1, however, few SCE programs explicitly require that funds allocations be based on district or school poverty levels. SCE programs vary considerably with regard to their funding levels, approach and program administration practices (Funkhouser & Moore, 1985).

Because SCE and Chapter 1 share common goals of assisting the same types of students, and because SCE contributes substantial funding to this effort (e.g., just over 1 billion dollars for the 1984-85 school year), over the years Congress has attempted to promote the growth of these programs and to minimize conflicts between them. It is in the best interests of Chapter 1 eligible students for policymakers to clearly understand how these programs are implemented. This report provides recent, nationally representative data that provide answers to the following questions:

(1) How are districts and schools selected to operate SCE programs?

(2) What is the distribution of SCE programs across Chapter 1 and non-Chapter 1 schools, as well as across schools with varying levels of poverty?

(3) What within-school selection practices are used to determine which grades and students are served by SCE?

(4) What services do SCE programs provide, and how do they compare with Chapter 1 services?

Major findings include:

Districts

- Districts with low rates of poverty are about as likely as those with high rates of poverty to receive SCE funds.

Across Schools

- Of all public elementary schools, roughly a third (34 percent) offer SCE programs.

- SCE programs are present sightly more often in public elementary schools with Chapter 1 (37 percent) than in public elementary schools without Chapter 1 (26 percent).

- Because of the ubiquitous nature of Chapter 1, the great majority (82 percent) of elementary schools that offer SCE also offer Chapter 1.

- The distribution of SCE programs across public elementary schools is much less dependent on the level of poverty in the school than is true of Chapter 1. Roughly equal percentages of schools with higher and lower levels of poverty receive SCE.

Within Schools

- SCE elementary school services are concentrated in grades 3-6. Aside from membership in a particular grade span, the major factors considered when selecting students to receive SCE services are test scores and participation in Chapter 1 or other special services.

- As is true of Chapter 1, the most commonly used criteria for selecting elementary students to participate in SCE are scores on reading, language arts or math tests, followed by a recommendation from the classroom teacher.

- Case study research suggests that SCE adds to the resources available to compensatory education by serving more students than Chapter 1 alone could serve.

- The relative educational disadvantage among compensatory education students may be somewhat greater for SCE students than for Chapter 1 students. Both SCE reading and math teachers report that virtually all (100 percent) of their students achieve below the 50th percentile, while Chapter 1 teachers in both subjects report a notably smaller percentage of students achieving below this level. This suggests that SCE serves the lowest achieving students, while Chapter 1 serves the remaining low achievers.

- About the same number of students in Chapter 1 versus non-Chapter 1 schools participate in SCE (a median percent of 12 versus 10, respectively).

- SCE serves roughly the same number of students in schools with higher versus lower levels of poverty (a median percent of 12 vs. 11, respectively). In sharp contrast, Chapter 1 serves many more students in poorer schools than it does in less poor schools (a median percent of 26 versus 12, respectively).

A Profile of SCE Services

- Although the total amount of Chapter 1 funding exceeds the total amount of SCE funding obligated by the States (e.g., by about three times for the 1984-85 school year), national survey data reveal few differences in the way the two programs are implemented in schools, or in measures of program intensity.

- Contrary to conventional wisdom suggesting that Chapter 1 and SCE services are kept separate to minimize conflicts, recent national survey data indicate that overlaps in grades served and subjects offered by the two programs are common.

The following surveys and studies conducted for the National Assessment, provide the basic data for this report:

The School Survey--A national survey of principals and teachers about regular, Chapter 1, and SCE schools, students, and services (McNeil Thorne, 1987).

The District Survey--A national survey of district Chapter 1 coordinators about district implementation of Chapter 1 and other special instructional programs, including SCE (Williams, McNeil Thorne, Michie & Hamar, 1987).

The Targeting Study--A study of how districts select Chapter 1 schools and students and the effects of these procedures (Wood, Gabriel, Marder, Gamel & Davis, 1986).

The Resource Allocation Study--A study of how districts allocate resources among schools and the resulting resource distributions (Goertz, 1987).

The Program Design Study--A study describing how districts and schools make program design decisions for Chapter 1 and other special instructional programs, including SCE (Knapp, Turnbull, Blakely, Jay, Marks, & Shields, 1986).

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THE INCREASE IN STATE COMPENSATORY EDUCATION PROGRAMS

State Compensatory Education (SCE) programs, like their federal counterpart, Chapter 1, are intended to assist low achieving students. Unlike Chapter 1, however, few SCE programs explicitly require that funds allocations be based on district or school poverty levels. SCE programs vary considerably with regard to their funding levels, approach, and program administration practices (Funkhouser & Moore, 1985). California enacted the first SCE program in 1963 (NIE, 1977). Since that time, an additional 18 States have implemented SCE programs, six of them doing so since the 1982-83 school year (Funkhouser & Moore, 1985).[2]

This growth at the State-level is mirrored at the district level as well, where during the 1985-86 school year, 37 percent of all school districts received SCE funds, compared to only 22 percent of districts in 1980-81 (District Survey; District Practices Study, 1982).[3] While no trend data are available on the proportion of schools receiving SCE, 34 percent of all public elementary schools offered SCE services as of 1985-86.[4] Within these schools, the median percent of students participating in SCE programs is 12. To place these figures in context, Chapter 1 serves 75 percent of all elementary

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[2]This number of SCE programs is based on a more restrictive definition of compensatory education than has been used by some researchers, requiring not only that States specify a target population, but also that they include specific requirements as to how the funds are to be spent. There is some discrepancy between the States identified by Funkhouser and Moore, 1985, and those identified by school principals and SCE teachers in the National Assessment Survey of Schools, where such restrictions were not applied. See Appendix A for a complete description of each of these samples.

[3]The figure cited from the District Practices Study, conducted by Advanced Technology, Inc., was calculated using the original datatapes from this study, but does not appear in any other publication.

[4]Data from the National Assessment of Chapter 1 School Surveys, while nationally representative of public elementary schools are not nationally representative of public *secondary* schools. Therefore, we limit our analysis to elementary schools.

schools, and, a median of 18 percent of students in these schools. In summary, SCE reaches noteworthy proportions of districts, elementary schools, and students, in an increasing number of States.

IMPLICATIONS FOR CHAPTER 1

The increase in the prevalence of SCE programs can have an impact on Chapter 1 for two primary reasons. First, both the State and Federal programs ultimately target funds to low-achieving students and share common goals for serving them. Thus, there are numerous opportunities for programmatic interaction. From the viewpoint of Chapter 1 policy, it is important that SCE is administered and provided in ways that do not discriminate against Chapter 1 eligible students.

A second and related reason SCE affects Chapter 1 is because SCE programs contribute substantially to the total amount of funding available for compensatory education. In the 1984-85 school year, the most recent year for which data are available, SCE contributed just over 1 billion dollars ($1,001,700,000) to helping educationally disadvantaged students (Funkhouser & Moore, 1985). This is roughly one third of the amount obligated by the federal government ($3,003,680,000) to fund Chapter 1 programs nationwide during that school year. Although in most States, SCE funds are considerably less than federal Chapter 1 funds, four States (New Jersey, New York, South Carolina, and Texas) allocated SCE funds that amounted to 45 percent or more of the Federal funds awarded each State. In two of these States (South Carolina and Texas) SCE funds were notably higher than Chapter 1 funds (Funkhouser & Moore, 1985). Furthermore, the most recent data available (1985-86) indicate that the average

district budget for SCE is $166,218.[5] This compares with an average district Chapter 1 allocation of $233,709. Thus, in those districts receiving SCE funds, on average, SCE increases the funds available for compensatory education (CE) by 71 percent.[6]

Because SCE adds considerably to the total resources available to educationally disadvantaged students, Congress has maintained an active interest in these programs. As early as 1974, Congress heard testimony of officials from New York, Michigan, and California to learn about the characteristics of their SCE programs, understand the relationship of these programs to Title I, and consider whether SCE might suggest ways to modify Title I (NIE, 1977). Subsequently, a study conducted by researchers at NIE on the administration of compensatory education concluded that SCE generally augmented and complemented Title I (NIE, 1977).

Congress has also attempted to insure that the Title I/Chapter 1 legal framework does not inhibit the growth of SCE programs and to minimize conflict between these two programs. For example, prior to the 1974 amendments to Title I, the Title I comparability requirements stated that LEAs must provide SCE to qualifying

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[5]This is the average district budget for SCE in Chapter 1 districts. The 10 percent of districts that do not receive Chapter 1 funds are predominantly very small districts (Birman, Orland, Jung, Anson & Garcia, 1987). In addition, due to data limitations, this average SCE budget reflects only those districts that receive SCE, as opposed to those that receive both State and locally-funded CE; we were unable to differentiate between the two budgets in these districts. (Most districts (68%) that get SCE do *not* also get locally-funded CE.) Locally-funded CE is defined in the National Assessment of Chapter 1 surveys as services designed for students performing below grade level that are not funded by other special service programs such as Chapter 1 and SCE. Local CE programs are most often found in non-Chapter 1, less poor elementary schools.

[6]Again, this is limited to those Chapter 1 districts receiving only SCE funds as opposed to both State and locally-funded CE funds.

needy children in all Title I schools before they could do so in non-Title I schools.[7] This allowed little flexibility with regard to the implementation of SCE programs; LEAs could not, for example, serve Title I eligible but unserved schools with SCE until all Title I schools had been served. As a result of the Education Amendments of 1974, LEAs were permitted to exclude State or Local CE programs meeting specific requirements from comparability calculations.[8]

After the passage of ECIA, Congress again attempted to promote SCE programs by exempting those SCE programs meeting these same specific requirements from the Title I/Chapter 1 supplement-not-supplant requirement. This requirement originally sought to insure that States and LEAs did not use Title I/Chapter 1 funds to replace State and local funds that would otherwise have been spent on these children. For

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[7]Providing substantial amounts of SCE funds to non-Title I schools would raise the average expenditures in those schools. Comparability requirements meant comparing expenditures in each individual Title I school with the average expenditures in all non-Title I schools. If an individual Title I school did not receive SCE funds, it would be less likely to meet the increased level of expenditures in non-Title I schools, and could not comply with comparability requirements (NIE, 1977).

[8]The requirements permitting exclusions, as outlined in Section 131(c) of Title I, and cross-referenced in Section 558(d) of Chapter 1 (20 U.S.C. Section 3807(d)), are:

(1) "all children participating in the program are educationally deprived;

(2) the program is based on performance objectives related to educational achievement and is evaluated in a manner consistent with those performance objectives;

(3) the program provides supplementary services designed to meet the special educational needs of the children who are participating,

(4) the local educational agency keeps such records and affords such access thereto as are necessary to assure the correctness and verification of the requirements of clauses (1), (2), and (3) of this subsection; and

(5) the State educational agency monitors performance under the program to assure that the requirements of clauses (1), (2), (3),and (4) of this subsection are met."

example, in the mid-1970s several States and LEAs used SCE as a complement to Title I, allocating SCE funds to serve needy children in non-Title I schools. In essence, districts may have discriminated against Title I schools because Federal funds in those schools replaced State funds that would otherwise have been spent there (Dougherty, 1985).

To ensure that Title I services were supplemental to SCE services yet allow flexibility in coordinating both funding sources, in 1978 the Title I legislation required that Title I students, *as a group*, were entitled to receive their "fair share" of SCE funds. Section 201.138 of the 1981 regulations implementing this legislation defined "fair share" as follows: the proportion of SCE funds allocated to Title I eligible students must be at least as great as the proportion of students eligible for SCE who live in Title I eligible attendance areas. In other words, if 60 percent of the SCE-eligible students attended Title I eligible schools, *these schools*, in the aggregate, should have received at least 60 percent of the district's SCE funds.[9] The 1983 technical amendments to ECIA went even further by exempting SCE from the supplement-not-supplant requirement, in effect allowing States and districts flexibility to serve needy schools and students who are not served by Chapter 1 with SCE funds. In fact, States and districts are free to place all of their SCE funds in non-Chapter 1 schools if they so choose.[10]

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[9]This example assumes that other special funds, such as bilingual education dollars, were not available for the particular program contemplated.

[10]Whether SCE-funded remediation services mandated by State law are exempt from the supplement-not-supplant provision has not been entirely clear. However, according to the 1983 and 1986 issues of the Chapter 1 nonregulatory guidance (NRG), "It is a violation to the supplement, not supplant requirement if an LEA uses Chapter 1 funds to provide services that the LEA is required to provide under Federal, State or local law, or under a court order."

THE PURPOSE OF THIS REPORT

In short, because SCE and Chapter 1 share common goals of assisting the same types of students, and because SCE contributes substantial funding to this effort, over the years Congress has attempted to promote the growth of these programs and to minimize conflicts between them. It is in the best interests of Chapter 1 eligible students for policy makers to clearly understand how these programs are implemented. This report provides recent, nationally representative data that provide answers to the following four questions:

(1) How are districts and schools selected to operate SCE programs?

(2) What is the distribution of SCE programs across Chapter 1 and non-Chapter 1 schools, as well as across schools with varying levels of poverty?

(3) What within-school selection practices are used to determine which grades and students are served by SCE?

(4) What services do SCE programs provide and how do they compare with Chapter 1 services?

SOURCES OF DATA

As part of the Congressionally mandated assessment of Chapter 1 conducted by the Department of Education's Office of Research, several studies were commissioned to examine aspects of Chapter 1 as well as selected other special instructional programs, including SCE, at the district and school levels[11].

During school year 1985-86, nationally representative survey information was collected from districts, schools, and teachers to describe the characteristics of these programs, of the students they serve, and the interaction between them. In addition, researchers conducted case studies of district and school level decisions regarding the

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[11]Detailed information on the selection of the samples for these studies is provided in Appendix B. The sample of districts included 1,028 districts that received SCE funds. The Survey of Schools sampled 682 principals of elementary schools, 241 of which operated SCE programs. In addition, 216 SCE teachers were sampled.

design of Chapter 1 programs, student targeting under Chapter 1, and resource allocation decisions; a limited amount of information was also gathered on issues related to the interrelationship of Chapter 1 and SCE programs in these areas. This report summarizes findings from these various sources.

The findings in this report are confined to the nation's elementary schools; sampling limitations prohibit us from generalizing these results to secondary schools nationwide. This limitation is not particularly problematic since most Chapter 1 programs are concentrated at the elementary school level. Thus, issues of coordination are likely to be most prominent in elementary schools. However, this report can not provide information pertaining to the involvement of secondary schools in SCE programs. In that respect, the elementary focus of available data constitutes a shortcoming.

ORGANIZATION OF THIS REPORT

This report is organized around the four study questions outlined above. The first section discusses district selection patterns for SCE funds. This is followed by a description of SCE school selection procedures and the distribution of these schools across Chapter 1 versus non-Chapter 1 schools and across poorer versus less poor schools. The third section contains information on within-school SCE selection practices, i.e., which grades and students are targeted to receive SCE. The final section of this report presents a descriptive profile of SCE programs and services at the school level, with particular emphasis on how these services compare with Chapter 1 services and the extent to which school poverty influences the design of SCE services.

CHAPTER 1

THE SELECTION AND DISTRIBUTION OF SCE DISTRICTS, SCHOOLS, AND STUDENTS

THE SELECTION OF DISTRICTS AND SCHOOLS

State and local requirements and policies affect the selection of which districts, and schools operate SCE programs. These requirements/policies reflect different concerns at each level of selection. The concerns include poverty, achievement, and the schools' eligibility to receive Chapter 1.

Selecting SCE Districts

Funkhouser and Moore found that States consider poverty and/or achievement to determine which districts will receive SCE. They note that the majority of States (11 of 19) distribute SCE funds to districts based solely on measures of student achievement as opposed to using a combination of both of these measures (4 States), or only measures of poverty (4 States). This contrasts notably with the Chapter 1 policy of using solely a measure of poverty to allocate funds to districts.

The Distribution of SCE Across Districts

Because Chapter 1's funding formula has a low threshold for program eligibility (at least 10 students residing in the district who are below the defined level of poverty), districts with low rates of poverty are about as likely as those with high rates of poverty to receive Chapter 1 funds (Birman, Orland, Jung, Anson & Garcia, 1987).

It is also true of SCE that districts with low rates of poverty are about as likely to get SCE as are districts with high rates of poverty. Whereas 35 percent of the quarter of districts with the lowest proportion of poor families[12] get SCE, only 46

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[12]This refers to all Chapter 1 districts, which excludes about 10 percent of all districts.

percent of those with the highest proportion of poor families get SCE. This pattern is consistent with Funkhouser and Moore's finding that the majority of SCE States use measures of achievement to allocate SCE funds to districts. Consequently, because most districts in these states have some low achievers, most receive SCE regardless of poverty concentration.

When the *amounts* of funding provided districts for each program are considered, however, district poverty levels are more influential. As shown in Table 1, the average SCE funds spent per student enrolled is greater in districts in the highest quartile[13] of poverty than in less poor districts.[14] However, when compared to the same calculations for Chapter 1 funds, the heavier poverty focus of Chapter 1 becomes clearly evident. Comparing districts in the lowest poverty quartile to those in the highest, Chapter 1 dollars per student notably increase, while SCE dollars per student increase only slightly.

Selecting SCE Schools

Case study research, combined with an understanding of the past legislative relationship between SCE and Chapter 1, provides information on how districts select schools to receive SCE funds. The Resource Allocation and Program Design Studies illustrate that one of the factors taken into account is whether schools are eligible to receive Chapter 1 funds. For some districts this results in a decision to place a certain proportion of SCE funds in Chapter 1 or Chapter 1 eligible but unserved schools. This decision can stem from a range of different concerns, a number of

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[13]Many analyses in this report organize district or school data by quartiles. In these analyses, districts or schools have been rank ordered and clustered into four groups, or quartiles, containing approximately equal numbers of districts or schools, as specified in the analysis. Thus, for example, schools in the lowest quartile of poverty are the least poor, while schools in the highest poverty quartile are the poorest schools.

[14]"Funds spent per student enrolled" refers to funds provided to districts rather than funds actually spent on students.

TABLE 1

District Funding for SCE and Chapter 1, by Poverty Quartile[a/] 1985-86

	SCE	Chapter 1
Average $/student enrolled	$53	$ 85
Average $/student enrolled by poverty quartile		
0 - 15 percent poor	$53	$ 71
15.1 - 30 percent poor	$54	$ 70
30.1 - 50 percent poor	$39	$ 95
50.1 - 100 percent poor	$60	$122

N = 527 (sample of districts that receive only SCE as opposed to SCE and locally-funded CE), 2091 (sample of districts that receive Chapter 1). Table values based on weighted data.

Source: Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86.

a/ This is district funding for SCE in Chapter 1 districts. The 10 percent of districts that do not get Chapter 1 are predominately very small districts (Birman, et al., 1987). In addition, these figures reflect only those districts that receive SCE as opposed to those that receive both SCE and locally-funded CE; we were unable to differentiate between the two budgets in these districts. District survey data indicate that locally-funded CE is provided most often to districts in the lowest quartile of poverty.

Table reads: The average amount of SCE funds spent per student is $53. The average amount of Chapter 1 funds spent per student is $85.

which may reflect the historical legislative requirements of comparability and supplement-not-supplant, especially as they once applied to SCE. For example, in one district visited by researchers, about two-thirds of the SCE budget was set aside for Chapter 1 schools. The district then used measures of need to allocate the compensatory education resource pool (SCE plus Chapter 1 funds) available to Chapter 1 schools.

A central reason districts consider the Chapter 1 status of schools when allocating SCE funds is the existence of State requirements that Chapter 1 eligible students, as a group, receive their "fair share" of SCE funds. Even though this requirement was eliminated from the Chapter 1 legislation, research indicates little State or local response to the supplement-not-supplant exemption. State officials attribute this stability in policies to the institutionalization of these practices under Title I and to assumptions that these policies are fair (Birman, et al., 1987). In fact, the Resource Allocation Study visited one State that prohibits districts from using the SCE supplement-not-supplant exclusion. Furthermore, even if States do not prohibit use of the SCE supplement-not-supplant exclusion, they may require that a certain percentage of SCE funds be spent in Chapter 1 eligible schools. For example, the Resource Allocation Study visited one State with a requirement for districts to spend 50 percent of all elementary level SCE funds in Chapter 1 eligible schools.

A final factor affecting the selection of SCE schools is State and/or district level specification of the grade levels served by SCE. If, for example, the State or district specifies that SCE serve students in grades 1-6 only, then a junior high or high school is automatically excluded from receiving SCE. According to Funkhouser and Moore, only about half (11 of 19) of SCE States limit the grade span served by SCE. In three of these States, however, (Pennsylvania, Michigan, and Washington) the spans specified cover almost the full 12 grades. Of the remaining eight States, there is practically an

even split in terms of a preference for serving elementary (between grades 1 and 6) versus secondary (between grades 7 and 12) grades. Yet, even when States limit SCE participation to a certain grade span, districts have flexibility within these State specifications.

The Distribution of SCE Programs Across Schools

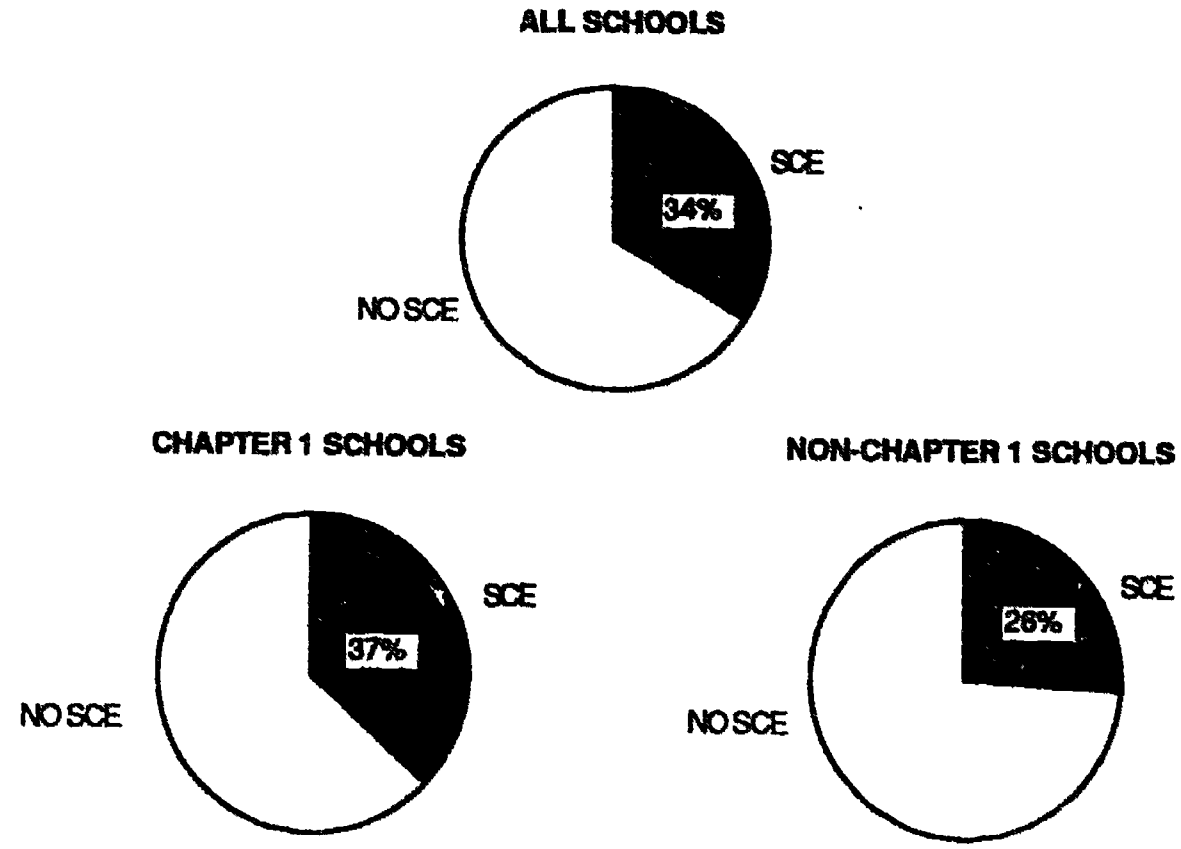
As Figure 1 indicates, roughly a third (34 percent) of all public elementary schools offer SCE programs. In addition, SCE programs are offered more often in schools that provide Chapter 1 (37 percent) than they are in schools that do not provide Chapter 1 (26 percent). Because Chapter 1 programs are so prevalent across public elementary schools (75 percent offer Chapter 1), however, the great majority of schools that offer SCE (82 percent) also offer Chapter 1 programs.

National survey data also reveal that school poverty influences the distribution of SCE programs across schools less than is true for Chapter 1 (Figure 2). Whereas just under 60 percent of all public elementary schools in the lowest school poverty quartile receive Chapter 1 funding, nearly 90 percent of those in the highest quartile receive Chapter 1. With regard to the receipt of SCE funds, however, fairly equal percentages (between 31 and 37 percent) of schools in all poverty quartiles receive SCE funds.

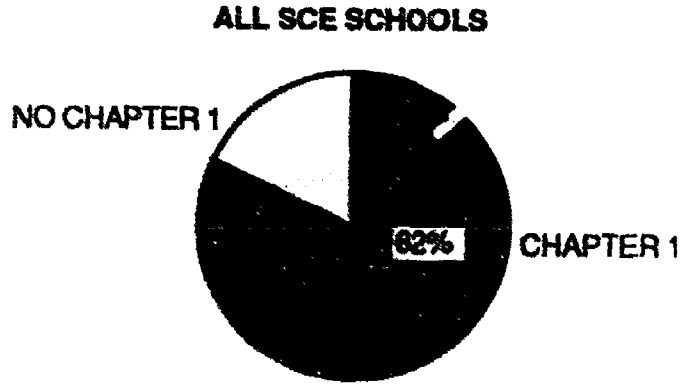
Interestingly, as shown in Figure 3, the presence of SCE in schools is more strongly influenced by school poverty in non-Chapter 1 public elementary schools than is true in Chapter 1 schools. Among Chapter 1 schools, the proportion of SCE elementary schools in all school poverty quartiles ranges between 35 and 42 percent. Among non-Chapter 1 SCE schools, these percentages range from 22 to 53 between schools in the lowest and highest poverty quartiles. SCE's greater presence in the poorest schools not served by Chapter 1 may reflect a philosophy among districts that SCE should reach needy schools that Chapter 1 does not reach. Despite Chapter 1's intentions, 13 percent of all public elementary schools in the highest quarter of

FIGURE 1

The Presence of SCE Across Public Elementary Schools, 1985-86



The Presence of Chapter 1 Across Public Elementary Schools With SCE

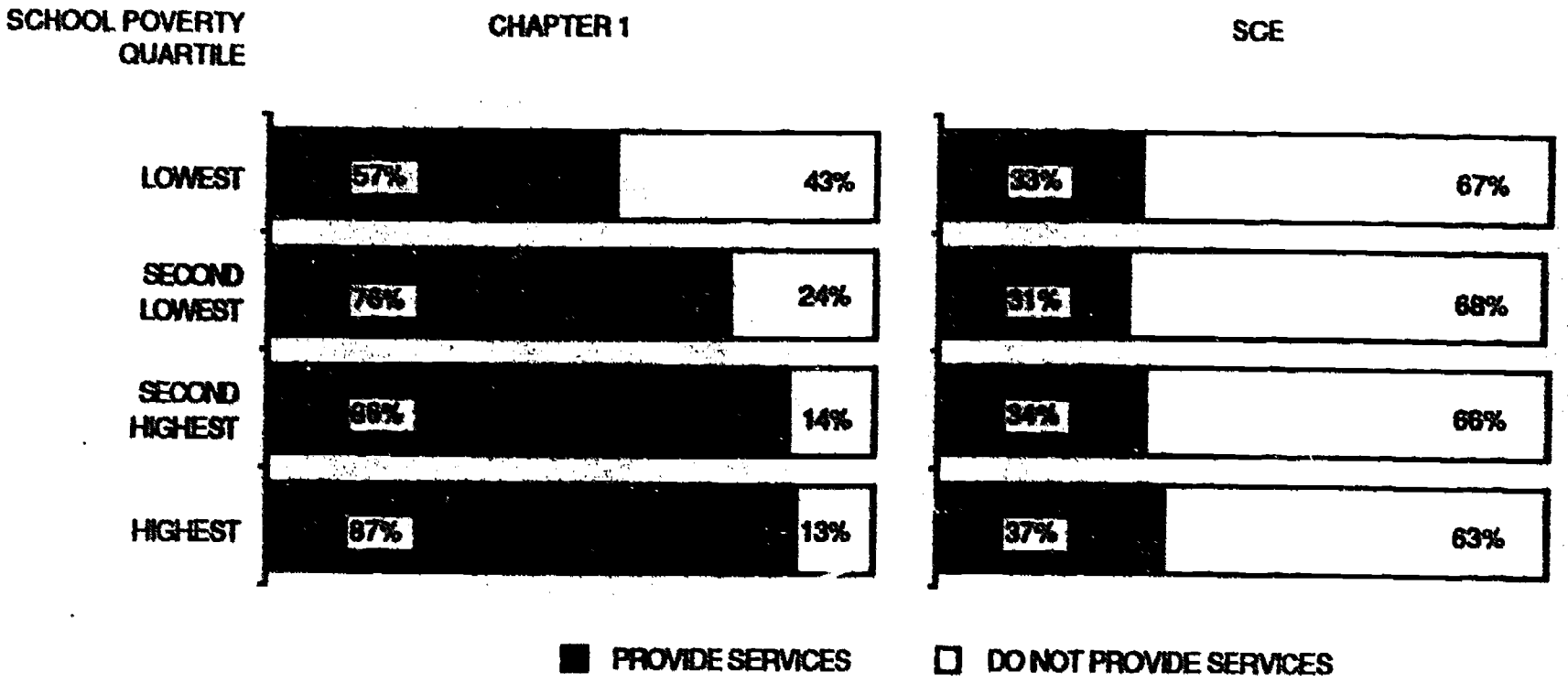


SOURCE: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86

Figure reads: Of all public elementary schools, 34 percent offer SCE services.

FIGURE 2

Percentage Of Public Elementary Schools Providing Chapter 1 And SCE Services, By School Poverty Quartile,[1] 1985-86



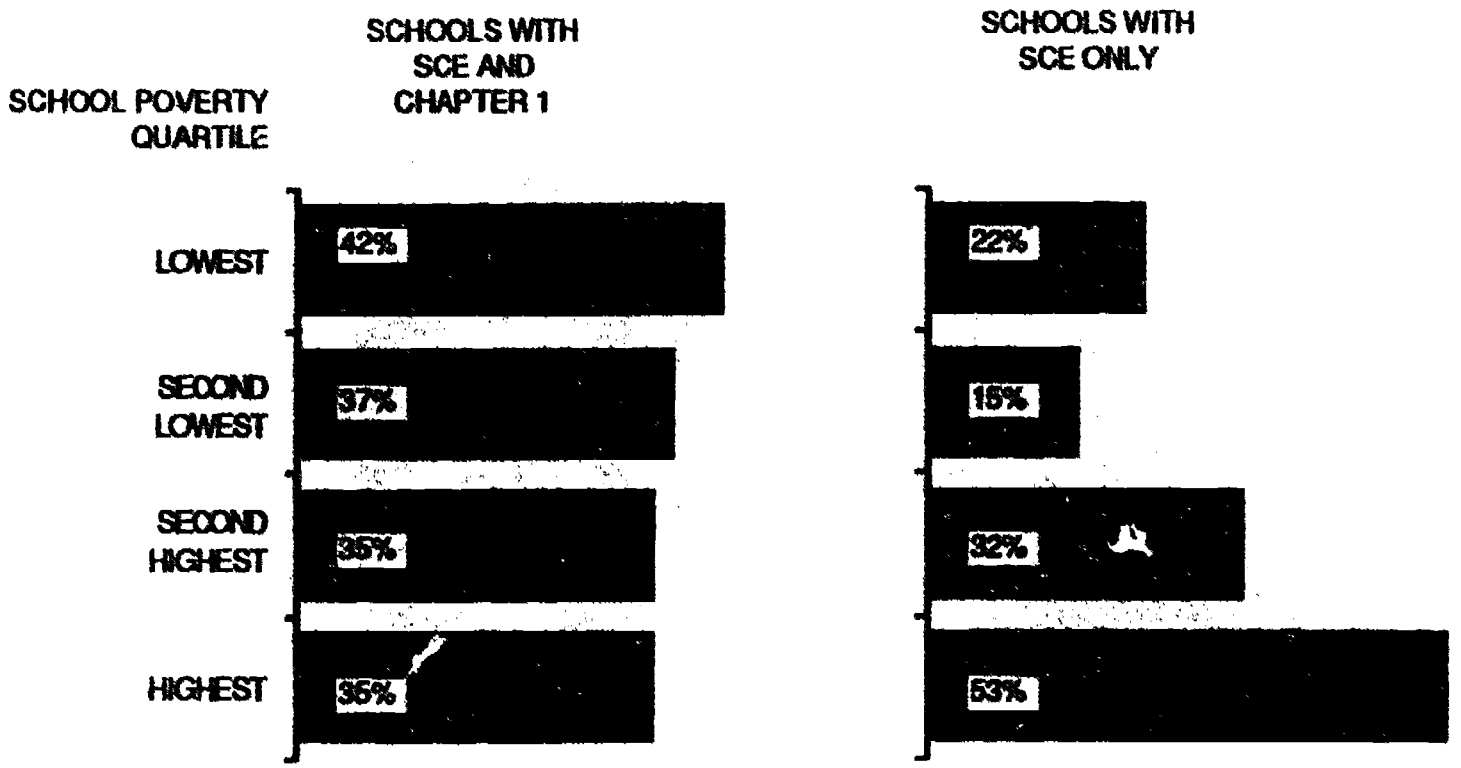
SOURCE: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Figure reads: Of all public elementary schools in the lowest school poverty quartile, 57 percent provide Chapter 1 services and 43 percent do not provide Chapter 1 services.

[1]School poverty classifications are based on principals' reports of the percentage of students who were eligible for free or reduced price lunches during the 1985-86 school year.

FIGURE 3

Presence Of SCE In Chapter 1 vs. Non-Chapter 1 Public Elementary Schools, By School Poverty Quartile,[1] 1985-86



SOURCE: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Figure reads: Of all public elementary Chapter 1 schools in the lowest school poverty quartile, 42 percent provide SCE services.

[1]School poverty classifications are based on principals' reports of the percentage of students who were eligible for free or reduced price lunches during the 1985-86 school year.

poverty do not receive Chapter 1 funds. This is due to the fact that while these schools are very poor by national standards, they are not as poor relative to other schools in their own district (Birman, et al., 1987).

Furthermore, Figure 3 indicates that when Chapter 1 schools are selected to receive SCE, a slightly greater proportion of those schools in the lowest poverty quartile receive SCE than is true of those schools in all other quartiles. This suggests that SCE school selection decisions result in SCE funds reaching slightly more Chapter 1 schools with lower levels of Chapter 1 funding.

The distribution patterns of SCE across elementary schools can be attributed to the greater emphasis on achievement as opposed to poverty in SCE school selection determinations. SCE funds are spread more evenly across elementary schools than are Chapter 1 funds, which reach a greater percentage of poor schools. However, due to the fact that poverty and achievement are correlated, when SCE funds do reach non-Chapter 1 schools, they serve a higher percentage of the poorest non-Chapter 1 schools where larger percentages of low achieving students are more likely found. The net result is for SCE funding choices at the school level to overlap and complement Chapter 1 funding patterns.

WITHIN SCHOOL SELECTION PRACTICES

Once an SCE program is placed in a school, within school selection decisions are made about which grades and students to serve. Chapter 1's presence is inevitably a factor in these decisions since Chapter 1 services are present in the vast majority of schools with SCE programs. In fact, a few States and districts have merged their Chapter 1 and SCE programs into a unified compensatory education program where services and pupils served are indistinguishable. Fourteen percent of elementary school

principals report they operate such merged programs.[15] The remainder maintain some form of separate identity between the two within schools.

The Selection and Distribution of Grade Levels Served by SCE

At the school level officials face decisions about whether to focus SCE funds on particular grades. These decisions can be influenced by two considerations. First, officials need to consider whether to concentrate available SCE resources in those grades where needs are greatest. Second, and relatedly, in most SCE elementary schools, officials need to decide whether to focus SCE programs in the same or different grades than those served by Chapter 1. For example, researchers conducting the Program Design Study visited some districts where SCE and Chapter 1 services were concentrated in distinctly different grade spans.

The national distribution of SCE services in grades does not differ greatly from the grade-level distribution of Chapter 1. However, some differences are worthy of note. As indicated in Figure 4, SCE elementary services nationwide are concentrated in grades 3 through 6. In comparison, Chapter 1 services are concentrated in the first (82 percent) and second (97 percent) grades to a greater extent than are SCE services in these grades--70 percent and 75 percent, respectively. Also, SCE services are more prevalent in kindergarten (41 percent) than are Chapter 1 services (27 percent).

These trends, however, reflect national patterns across all elementary schools receiving SCE and/or Chapter 1 funds. Another question revolves around how schools decide which grades to serve when both SCE and Chapter 1 are present in the same school. An analysis of public elementary schools that provide both programs revealed

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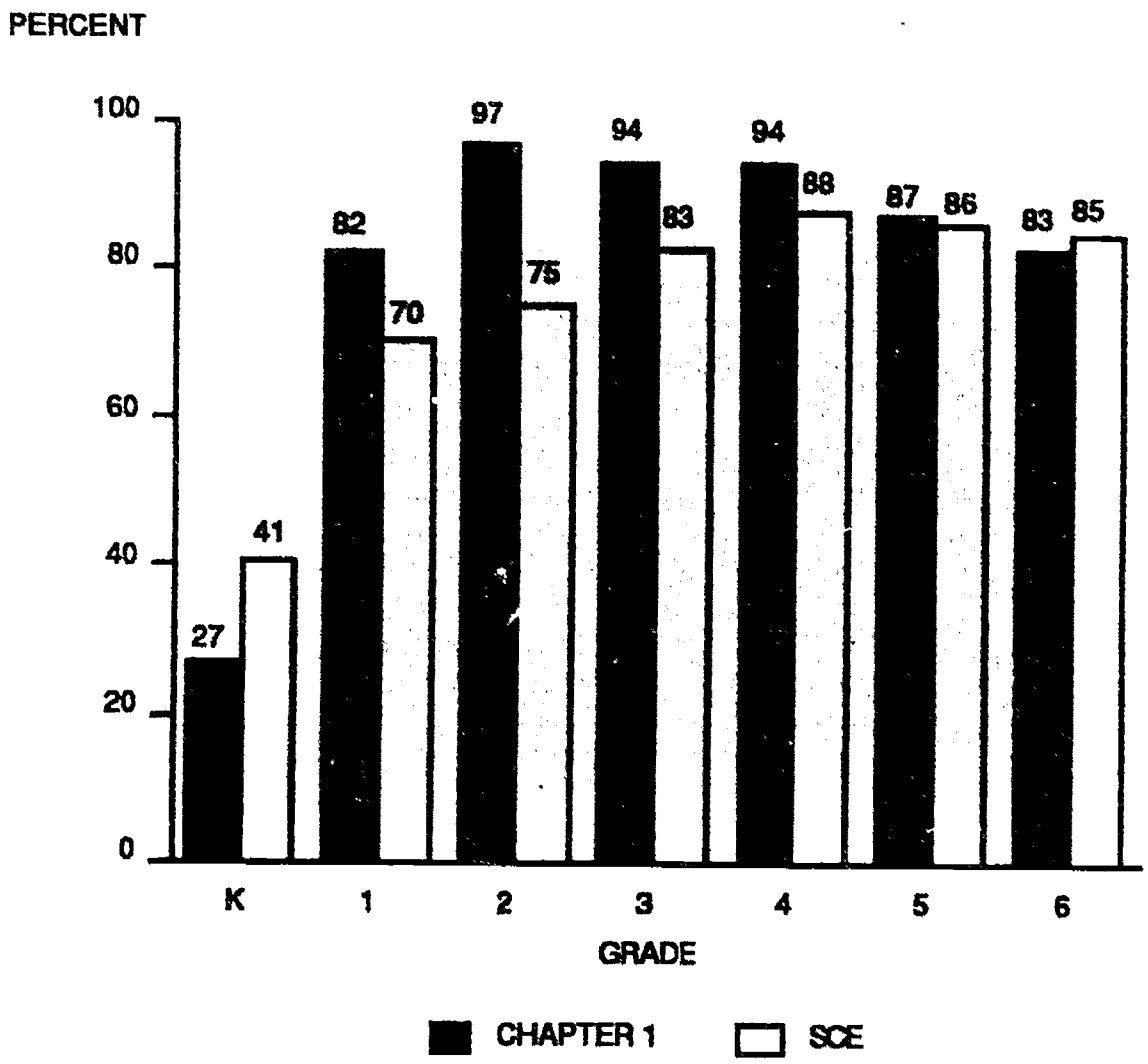
[15]All following analyses that compare and contrast SCE and Chapter 1 services exclude those elementary schools with merged programs.

FIGURE 4

Percentage of Public Schools That Offer SCE and Chapter 1 Services by Grade, 1985-86



SOURCE: Survey of Schools conducted for the Chapter 1 National Assessment 1985-86.

Figure reads: Of all public SCE elementary schools that have kindergarten, 41 percent provide SCE services to kindergarten students.

Of public Chapter 1 elementary schools that have kindergarten, 27 percent provide Chapter 1 services to kindergarten students.

that some overlap in grades is common; in fact schools neither separate completely the grades served by each program, nor do they choose to offer both programs in the identical set of grades. Slightly less than a third (30 percent) of all public elementary schools with both SCE and Chapter 1 provide both services to *all* of the same grades. At the other end of the continuum, it is even more uncommon for schools to focus SCE on some grades and Chapter 1 on others, with no overlap. Only 4 percent of public elementary schools with both programs keep the focus of the two programs on entirely separate grades. In sum, there appears to be no uniform pattern of handling the overlap of the two programs within elementary schools by placing each in particular grades. Although many variations occur, most elementary schools have overlaps between State and Federal compensatory education services in some grades, but not in all.

Selecting SCE Students

The selection of students to participate in SCE is affected by decisions made at the State, district, and school levels. In general, district and school officials exercise some degree of discretion over the requirements/policies handed down to them by the State. The major factors considered when selecting students to participate in SCE services beyond membership in a particular grade span are test scores and participation in Chapter 1 or another special instructional program.

States influence which students participate in SCE by specifying a cut-off level on achievement tests. Almost all of the SCE States identified by Funkhouser and Moore (1985) invoked cut-off scores in targeting SCE services. However, even when the State specifies a cut-off score, there is room for variation at the district and school levels. For example, if the State limits SCE services to students scoring below the 25th percentile, districts may limit SCE services to only those pupils scoring below

the 15th percentile, while allowing Chapter 1 to serve those scoring between the 15th and 40th percentile.

A few States allow for much greater district discretion regarding the use of cut-off scores to target students. Ohio's student targeting provisions, for example, are described as follows:

> Target students are those in "greatest educational need" in Chapter 1 eligible buildings. A local needs assessment is performed, but there are no prescribed criteria for scores necessary to participate.

Not surprisingly, National Assessment school survey data indicate that, as is true regarding Chapter 1, the most commonly used criteria for selecting elementary students to participate in SCE are scores on reading, language arts or math tests (reported by 88 percent of principals). The second most common criterion, also true with respect to Chapter 1, is a recommendation from the classroom teacher, reported by 61 percent of principals.

Another type of test used to select students for SCE services is the minimum competency test. As Table 2 indicates, minimum competency tests are administered in 70 percent of public elementary schools with SCE programs, and roughly three-quarters (76 percent) of principals in these schools report that these tests influence students' receipt of SCE; most often (in 75 percent of these schools) *all* students scoring below minimum competency are eligible for SCE. Furthermore, these tests influence the receipt of SCE to a greater extent than they influence the receipt of Chapter 1, probably due to the fact that minimum competency tests are sometimes linked with requirements for remediation that schools could not use Chapter 1 funds to support.

A third factor affecting which students receive SCE is their participation in Chapter 1 or other special instructional services. Both the Resource Allocation and Program Design Studies found evidence that districts can choose to reduce the potential student overlap in receipt of SCE and Chapter 1 services. For example,

TABLE 2

SCE and Chapter 1 Student Selection and Use of Minimum Competency Tests, as Reported by School Principals, 1985-86

Use of Minimum Competency Tests	Percent of Public Elementary Schools	
	SCE	Chapter 1
Administer Tests	70	60
Tests Influence Receipt of Service	76	67
All Students Scoring Below Minimum Competency are Eligible for Service	75	57

N = 241 (sample of public elementary schools with SCE programs), 348 (sample of those with Chapter 1 programs). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Table reads: Minimum competency tests are administered in 70 percent of all public elementary schools with SCE programs. These tests are administered in 60 percent of schools with Chapter 1 programs.

Resource Allocation researchers visited one State with a requirement that no student receive services from more than one funding source in any subject area. In one district visited by Program Design Study researchers, the lowest scoring students were served by SCE, and the rest (those scoring up to the Chapter 1 cut-off score) by Chapter 1. These examples suggest that perhaps student selection specifications are based on consideration of how SCE and Chapter 1 student selection will complement one another. Case study research suggests that SCE student selection practices, by serving students in additional subject areas or with different test scores, operate to serve more students than Chapter 1 alone could serve.

However, school survey data indicate that 61 percent of principals in schools that offer both SCE and Chapter 1 report that SCE and Chapter 1 serve "some" of the same students.[16] Conceivably, these students may receive instruction in reading from Chapter 1 and special help in math or language arts from the SCE program. Alternatively, one program may support teachers in a program, while the other provides aides to assist those teachers. It should be remembered, however, that the schools reporting an overlap between Chapter 1 and SCE students do not include the 14 percent of schools that indicate Chapter 1 and SCE are operated as one indistinguishable program.

In order to explore the question of whether Chapter 1 and SCE services are used to provide different subjects we conducted analyses of patterns across schools in general as well as within those schools that provide both services to the same grades. Like Chapter 1, SCE is primarily a reading and mathematics program. As shown in Figure 5, reading is offered by the greatest majority of public elementary SCE schools (92 percent), followed by mathematics (86 percent) and language arts (54 percent).

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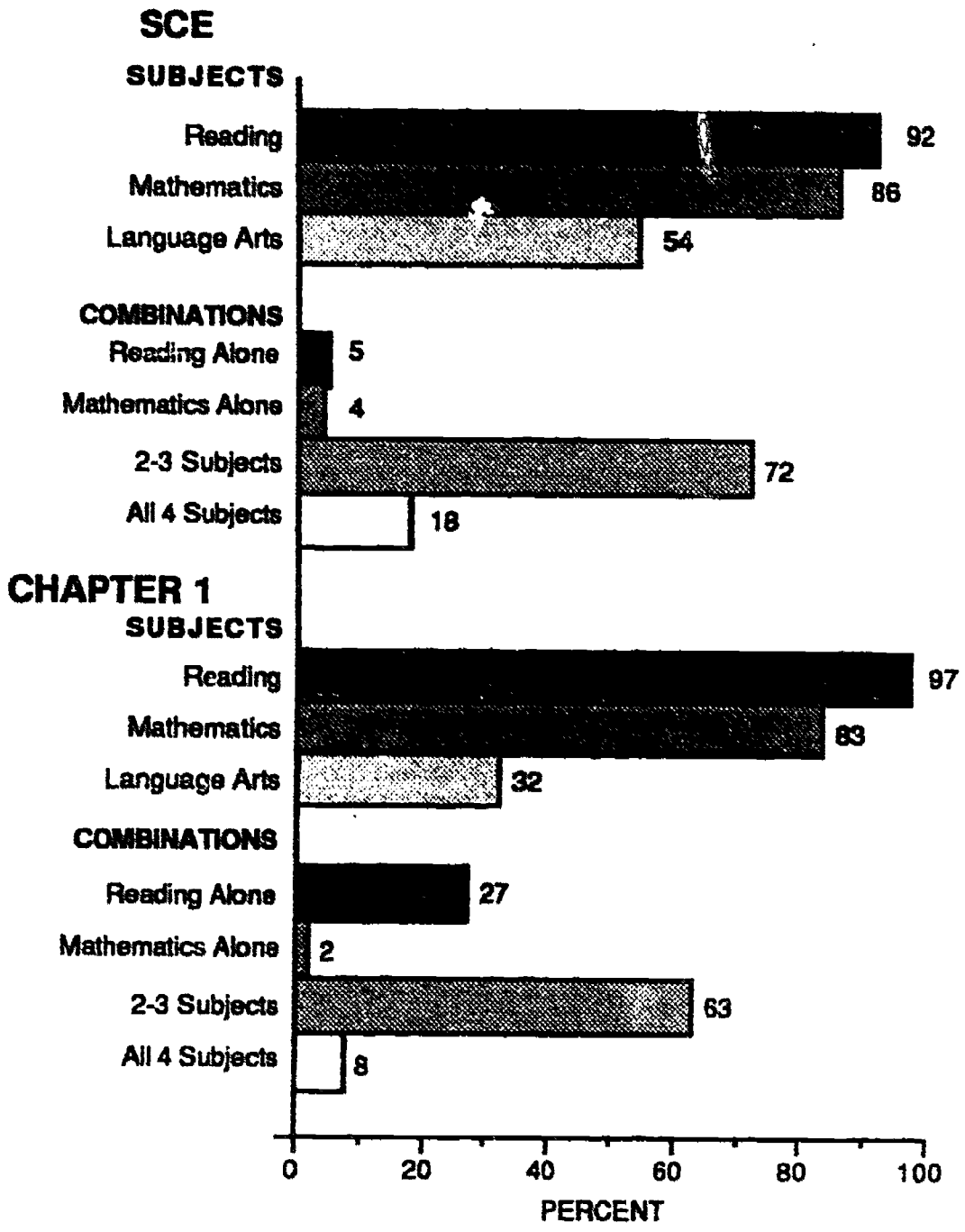
[16]The data do not allow analysis of how many students in these schools are served by both programs.

FIGURE 5

Subjects And Combinations Of Subjects Offered As Part Of SCE And Chapter 1 Services In Public Elementary Schools, As Reported By School Principals, 1985-86



SOURCE: Survey of Schools conducted for the Chapter National Assessment, 1985-86.

Figure reads: Of all SCE elementary schools, 92 percent offer reading. Of all Chapter 1 elementary schools, 97 percent offer reading.

Nearly three-fourths (72 percent) of SCE schools provide combinations of 2 to 3 subjects, while very small percentages provide only one subject--reading (5 percent) and mathematics (4 percent). Within schools and grades, moreover, it is common to provide the same subjects with each program. More specifically, approximately three-fourths of the schools that offer Chapter 1 and SCE in the same grades use the programs to provide the same subjects in those grades. Seventy-seven percent of public elementary schools that offer both Chapter 1 and SCE in the same grades offer both Chapter 1 and SCE reading. Additionally, 71 percent of those that have both programs in the same grades offer both Chapter 1 and SCE mathematics. This may reflect a tendency noted in the Program Design Study for districts to prefer a particular design for their compensatory services and to operate the two programs in a highly similar fashion. In sum, despite the past legislatively required relationship between SCE and Chapter 1 that may have prompted schools to separate the two programs, recent national survey data offer evidence that most schools do not direct Chapter 1 and SCE funds to different subjects.

The Distribution of SCE Students

Scores on Achievement Tests

While both SCE and Chapter 1 services target students using a measure of achievement, case study data indicate that some districts use SCE to serve students with the lowest test scores and Chapter 1 to serve the remaining low achievers. If this practice were widely prevalent, one might expect to find greater percentages of SCE students than Chapter 1 students scoring in the lowest percentiles on achievement tests.

As part of the National Assessment, SCE and Chapter 1 teachers provided approximations of the number of students in their reading and mathematics classes achieving below the 50th and 25th percentiles. These data suggest that SCE students

may be relatively more educationally disadvantaged than Chapter 1 students. SCE reading teachers nationwide generally report that 100 percent of their SCE reading students achieve below the 50th percentile. The comparable figure for Chapter 1 teachers is only 73 percent. The difference is even greater between SCE and Chapter 1 mathematics teachers--100 percent versus 46 percent of students achieving below the 50th percentile.

SCE Student Enrollments

Table 3 displays the median percent of students receiving SCE and Chapter 1 in schools offering these programs. Overall, a greater percentage of students within schools are enrolled in Chapter 1 (18 percent) than in SCE programs (12 percent). Chapter 1's higher enrollment levels increase as the poverty level of the school increases. These patterns probably reflect the higher funding levels of Chapter 1 compared with SCE, especially in poorer schools. The percentage of students participating in SCE services within all schools and Chapter 1 schools remains relatively the same across different levels of poverty.

Table 3 also indicates that SCE serves a notably greater proportion of students in the poorest non-Chapter 1 schools than it serves in the poorest Chapter 1 schools (a median of 32 versus 10 students). Furthermore, the presence of an SCE program does not decrease participation in Chapter 1 in a school. In the third of all elementary schools offering both SCE and Chapter 1 programs, the percentage of students who participate in Chapter 1 remains approximately the same as the percentage of students enrolled in Chapter 1 across all schools. These patterns - - SCE programs serving more students in the poorest non-Chapter 1 schools and increasing the number of students receiving compensatory education services in Chapter 1 schools - - confirm the previously stated findings from case studies that SCE programs appear to increase

TABLE 3

Median Percent of Students Receiving SCE and Chapter 1 in Public Elementary Schools Offering the Programs, as Reported by School Principals, 1985-86

	Median Percent Receiving SCE	Median Percent Receiving Chapter 1
All schools with program	12	18
All schools with program By Poverty Quartile:		
0 - 15 percent poor	11	12
15.1 - 30 percent poor	8	16
30.1 - 50 percent poor	16	20
50.1 - 100 percent poor	12	26
Chapter 1 schools with SCE By Poverty Quartile:	12	18
0 - 15 percent poor	12	14
15.1 - 30 percent poor	8	16
30.1 - 50 percent poor	15	20
50.1 - 100 percent poor	10	28
Non-Chapter 1 schools with SCE By Poverty Quartile:	10	--
0 - 15 percent poor	7	
15.1 - 30 percent poor	8	
30.1 - 50 percent poor	20	
50.1 - 100 percent poor	32	

N = 236 (sample of SCE public elementary school principals, 358 (sample of Chapter 1 public elementary school principals). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Table reads: The median percent of students receiving SCE in public elementary schools with an SCE program is 12. The median percent receiving Chapter 1 in schools with a Chapter 1 program is 18.

the total number of students receiving compensatory help beyond the number Chapter 1 alone could support.

CHAPTER 2

A PROFILE OF SCE INSTRUCTIONAL SERVICES

In previous sections we explored differences in the distribution of SCE and Chapter 1 at the district, school, and student levels. These explorations reveal that while the distribution of SCE programs is less controlled by poverty than is Chapter 1 and SCE programs serve a smaller percentage of pupils at the school level, SCE and Chapter 1 are fairly similar in the grades they serve and the subjects they offer. In this section, we address whether the two programs share similarities with regard to various features of instruction provided to students.

COMPARISONS OF SCE AND CHAPTER 1 INSTRUCTION

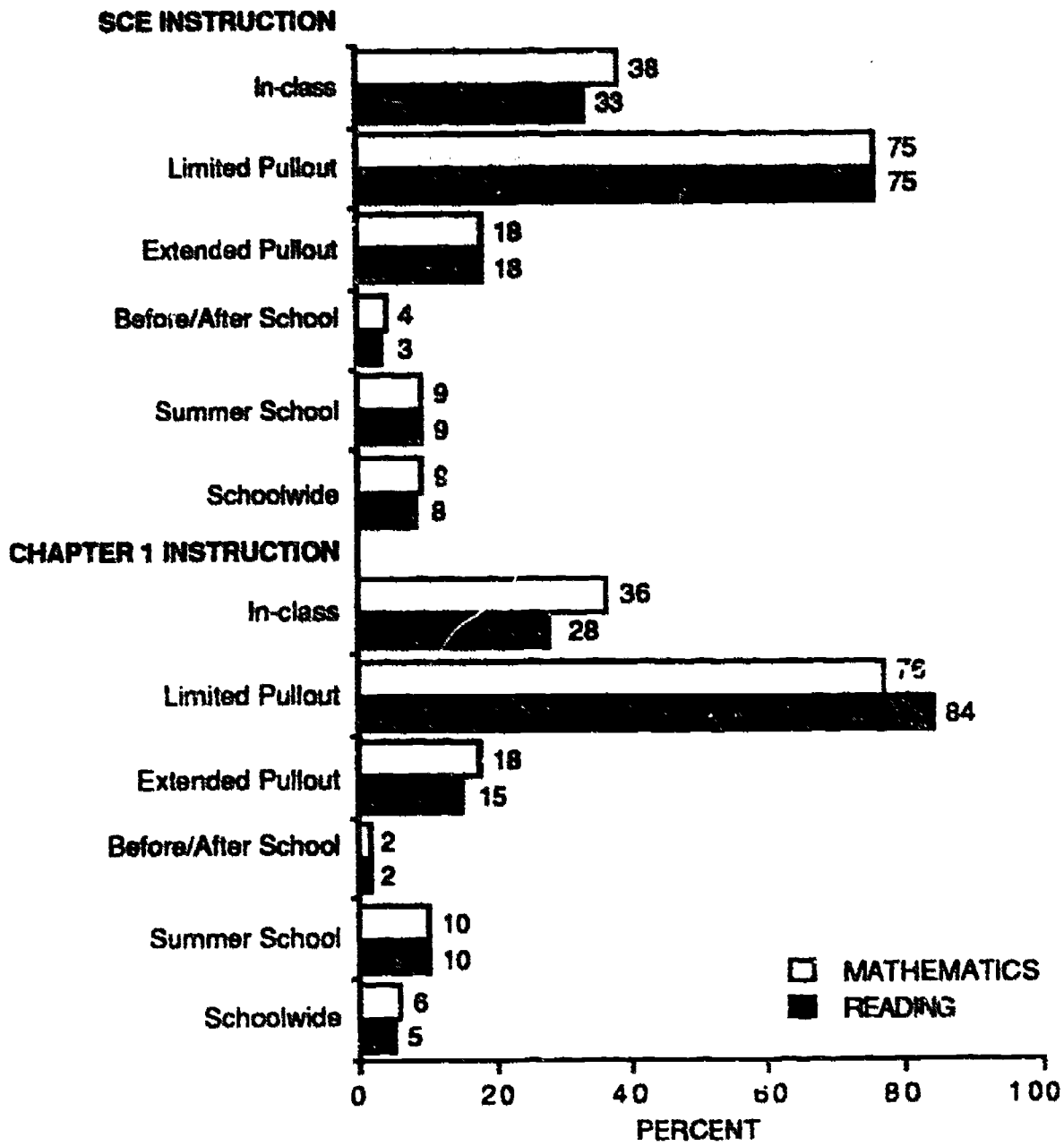
Although the total amount of Chapter 1 funding exceeds the total amount of SCE funding obligated by States, and Chapter 1 enrollments are typically greater than those of SCE programs in schools, national survey data indicate few differences in the design of the two programs or in measures of program intensity.

Instructional Settings

SCE strongly resembles Chapter 1 in the approaches used to deliver instruction. Although available data do not permit an estimate of the percentage of compensatory education students nationwide who receive remedial instruction in different settings, we are able to obtain estimates of the percentages of schools that use each approach. As is true of Chapter 1 instruction, the majority of principals report that SCE instruction is delivered in a limited pull-out setting, a model by which schools provide SCE instruction in a different location than the regular classroom. Figure 6 indicates that 75 percent of public elementary schools that provide SCE reading and mathematics use a limited pull-out approach. Another similarity to Chapter 1 is the relative infrequency

FIGURE 6

Settings In Which SCE And Chapter 1 Reading And Mathematics Are Provided By Public Elementary Schools, As Reported By School Principals, 1985-86



SOURCE: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Figure reads: Of all public elementary schools that offer reading instruction, principals in 33 percent report the use of an in-class setting to teach SCE reading.

with which schools provide SCE instruction in an in-class arrangement. Less than 40 percent of principals in SCE public elementary schools report that students receive SCE reading and mathematics lessons in their regular classroom. As noted above, however, these estimates do not provide a picture of the number of students in the nation who receive compensatory education in an in-class arrangement. Analyses reveal that large schools are somewhat more likely to use in-class models than are schools with smaller enrollments, suggesting that estimates of schools using in-class approaches may understate the number of students taught in in-class models.[17]

The extended pull-out setting is next in prevalence; 18 percent of principals in public elementary schools report that they use it to provide SCE reading and mathematics instruction. As is true of Chapter 1 programs, few public elementary school principals report use of settings for SCE that add time to the student's regular day, such as before or after school (less than 5 percent), or to the academic year, such as summer school (9 percent). The school-wide approach is also rarely used for SCE instruction; less than 10 percent of public elementary school principals report its use.

Staffing Patterns

Although one might expect the lower funding levels for SCE programs to encourage a reliance on aides in order to reach more students, survey data provide evidence that both SCE and Chapter 1 programs tend to use teachers rather than aides to provide instruction. As indicated in Figure 7, the most common model for the delivery of SCE reading instruction is an SCE teacher without the assistance of an aide

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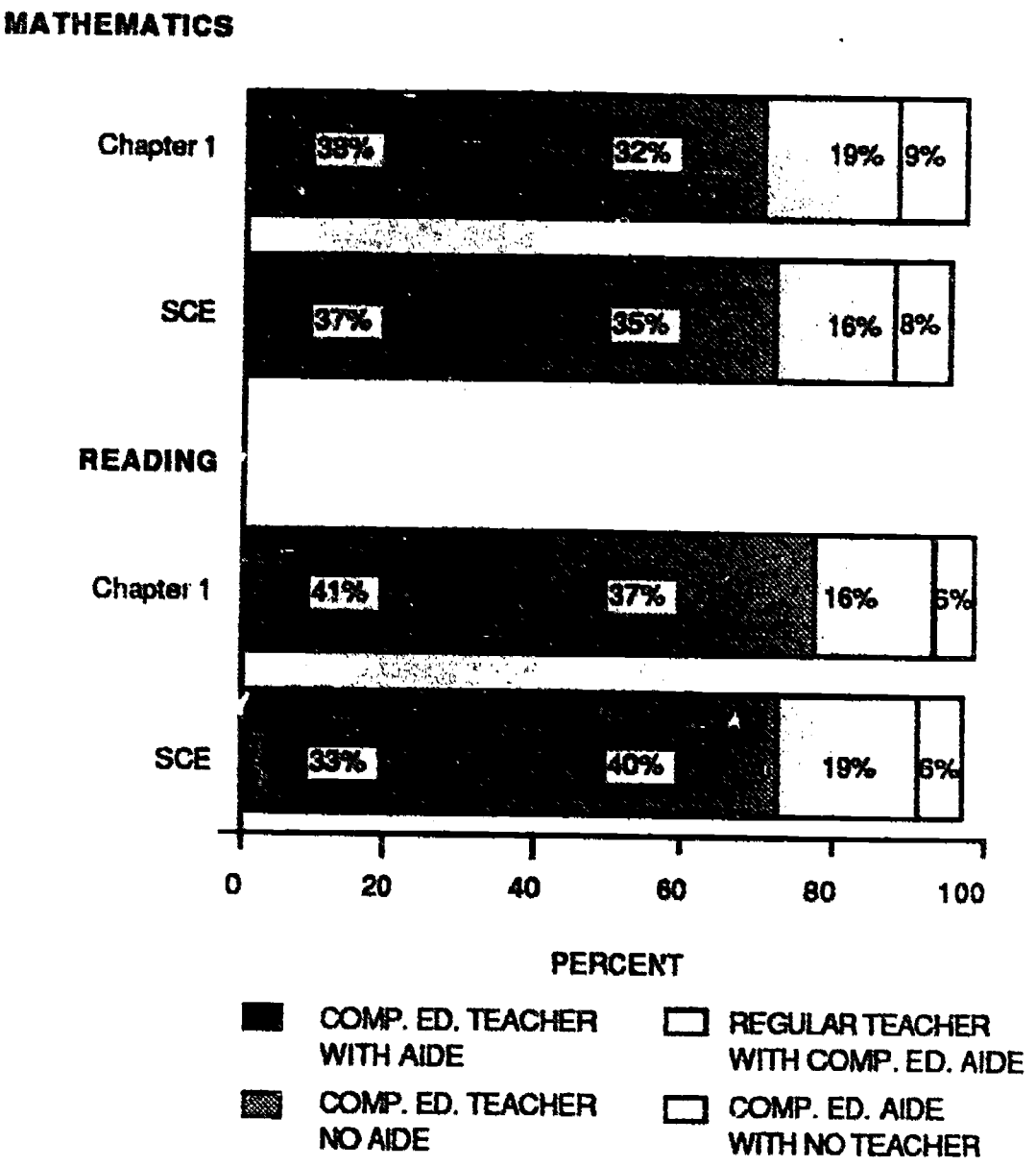
[17]Among Chapter 1 elementary schools, 21 percent of principals in small schools (0 to 300 students) report that in-class arrangements are used for reading, while the comparable percentage for large schools (over 500 students) is 33 percent. Among SCE elementary schools, 21 percent of principals in small schools report that SCE reading is provided in-class, compared to 43 percent of those in large schools.

FIGURE 7

Staffing Patterns that Best Describe SCE and Chapter 1 Instructional Services in Public Elementary Schools, as Reported by School Principals, 1985-86



SOURCE: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Figure reads: In public elementary schools where SCE reading is offered, 33 percent of school principals report that using an SCE teacher in combination with an aide best describes SCE reading instruction.

(40 percent). Forty-one percent of principals in public elementary schools report that use of a Chapter 1 teacher with an aide best describes reading instruction in their school. This is the case for only 33 percent of SCE principals. Aides working with a regular classroom teacher or alone are least used by schools to deliver either SCE or Chapter 1 reading services. Similar staffing patterns characterize mathematics instruction.

Effective Educational Practices

As part of the National Assessment of Chapter 1, several instructional features were identified as effective practices for educating disadvantaged students. Among these effective practices were the use of (1) qualified instructors; (2) small groups for instruction; and (3) increased instructional time (Birman, et al., 1987). These features can be used as a framework for reviewing current SCE services and comparing SCE services to those provided under Chapter 1.[18] Although national funding levels for the two programs differ, the instructional features of Chapter 1 and SCE within schools appear quite similar with only a few exceptions. For example, when the feature of instructional time is considered, SCE services appear to be somewhat more intensive than Chapter 1. In the following sections we explore each feature of effective practice.

Characteristics of Instructors

As described earlier, the most common staffing pattern for the delivery of SCE services is an SCE teacher without the assistance of an aide, followed closely in prevalence by an SCE teacher with an aide. There are several questions one can ask, however, to assess and compare the qualifications and skills of those teachers who

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[18]Analyses of SCE teacher responses regarding features of instruction are limited to teachers reporting that SCE and Chapter 1 are operated as separate programs in their schools.

provide instruction to disadvantaged students. Among them are whether the instructors are at least as qualified with respect to education and experience as regular teachers, whether typical caseloads and additional duties are similar for SCE and Chapter 1 teachers, and whether the qualifications and duties of the aides who assist in providing remedial instruction are comparable.

Survey data presented in Table 4 reveal only modest differences between the experience and qualifications of SCE and Chapter 1 teachers. Most SCE teachers, like Chapter 1 teachers, hold at least a bachelors degree. In addition, the median years of experience for SCE and Chapter 1 teachers are roughly equal--14 and 13 years, respectively. Similarly, SCE (44 percent) and Chapter 1 (54 percent) teachers are about as likely to hold a specialist certificate or credential. One notable difference is that SCE teachers (24 percent) are far less likely than Chapter 1 teachers (69 percent) to hold a specialist certificate or credential in reading, but they are about as likely as regular classroom teachers (28 percent) to hold this credential.

Next we turn to an examination of teacher caseload. The total number of students typically taught by SCE teachers in public elementary schools is somewhat smaller than the number taught by Chapter 1 teachers. SCE teachers typically provide instruction to 20 students, while 31 is the typical number of students taught by Chapter 1 teachers. The size of teachers' caseloads is important to the extent that the more students a teacher is responsible for throughout the day, the less time is available for the preparation of materials and lessons for each student.

Although the number of compensatory education students taught by SCE is smaller than that taught by Chapter 1 teachers, the duties of SCE teachers appear to be more diverse. In 63 percent of public elementary schools SCE teachers have other teaching duties apart from SCE, and more than half (53 percent) have other non-SCE administrative duties. Chapter 1 teachers, in contrast, are less likely to have other

TABLE 4

Educational Attainment of Compensatory Education and Regular Teachers in Public Elementary Schools, 1985-86

Instructor Level of Education	Percent of SCE Teachers	Percent of Chapter 1 Teachers	Percent of Regular Teachers
Teachers			
Level of Schooling:			
Beyond MA	9	15	14
MA	37	36	31
Beyond BA	39	29	35
BA	15	21	20
	100%	100%	100%
Specialist Certificate or Credential:			
Any Certificate or Credential	44	54	23
Reading	24	69	28
Experience:			
Median Years of teaching experience	14	13	14

N = 127 (sample of SCE teachers in public elementary schools), 621 (sample of Chapter 1 teachers in public elementary schools), 363 (sample of regular teachers in public elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86

a/ Percents may not sum to 100 due to rounding.

teaching duties apart from Chapter 1 (36 percent) and other non-teaching administrative duties (45 percent).

With respect to the availability of aides to help provide instruction, SCE and Chapter 1 teachers share a similar experience. When SCE teachers were asked about the availability of aides to assist them in the classroom, 49 percent reported that they are assisted by an instructional aide. This compares to 52 percent of Chapter 1 teachers who have the assistance of aides. However, the educational attainment of aides who assist SCE teachers is higher than that of aides who assist Chapter 1 teachers. The majority (69 percent) of SCE aides have less than 4 years of college training, and 43 percent of those have no degree or certificate. Ninety-one percent of the aides assisting Chapter 1 teachers have less than a college degree, and 71 percent of those hold no degree or certificate.

The relatively low educational attainment of aides is noteworthy to the extent that aides are relied upon to directly provide SCE instruction. In practice, although nearly all (99 percent) SCE teachers in public elementary schools report that aides provide assistance to students on their classwork, only 35 percent of SCE teachers report that aides provide instruction independently of the teacher (Table 5). Three-fourths (75 percent) of SCE teachers report that the duties of their aides include assisting the teacher in non-instructional tasks. In those instances where an aide helps an SCE teacher provide instruction, the teacher almost always decides what skills the aide will address (99 percent) and what materials the aide will use (91 percent). These patterns are virtually identical for Chapter 1 teachers who teach with aides--97 percent and 93 percent, respectively.

Instructional Group Size

As shown in Table 6, SCE teachers in public elementary schools report that their students are typically taught in small groups composed of about six students, for both

TABLE 5

Tasks Performed by SCE and Chapter 1 Aides in Public Elementary Schools, As Reported by Teachers 1985-86

Duties of Aides	Percent of SCE Teachers	Percent of Chapter 1 Teachers/Aides
Assist students with classroom work assigned by teacher	99	93
Give feedback to students about their work	99	93
Correct students' work	83	82
Assist teacher in non-instructional tasks	75	71
Provide instruction independently of teacher	35	44
Assign classwork to students	37	34

N = 40 (sample of SCE teachers in public elementary schools), 621 (sample of Chapter 1 teachers/aides in public elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Table reads: Ninety-nine percent of SCE teachers who have the assistance of aides in public elementary schools report that aides assist students with classroom work assigned by a teacher.

TABLE 6

Instructional Time and Group Size for SCE and Chapter 1 Reading and Mathematics, as Reported by Teachers, 1985-86

Instructional Time and Group Size by Subject	SCE Public Elementary Teachers		Chapter 1 Public Elementary Teachers	
	Median	Interquartile Range	Median	Interquartile Range
Reading				
Size of instructional groups	6	3 to 6	5	3 to 7
Days per week	5	5 to 5	5	5 to 5
Minutes per day	40	30 to 60	35	30 to 50
Mathematics				
Size of instructional groups	6	3 to 8	5	3 to 8
Days per week	5	5 to 5	5	4 to 5
Minutes per day	45	30 to 60	30	30 to 50

N = 109 (sample of SCE reading teachers in public elementary schools), 83 (sample of SCE mathematics teachers), 403 (sample of Chapter 1 reading teachers in public elementary schools), 238 (sample of Chapter 1 mathematics teachers in public elementary schools).

Source: Survey of Schools conducted for Chapter 1 National Assessment, 1985-86.

Table reads: According to SCE teachers in public elementary schools, the median number of students in an instructional group during SCE reading is 6.

reading and mathematics.[19] As indicated by the interquartile range shown in the second column, there is little variability in the size of instructional groups.[20] Chapter 1 programs are characterized by similar small group sizes in both reading and mathematics. Group sizes this small have been shown effective for improving the achievement of low-achieving, economically disadvantaged students (Birman, et al., 1987).

Increased Instructional Time

A well-documented research finding is that the more time students spend on academic tasks, the more they actually learn (Walberg & Frederick, 1983). Table 6 indicates that SCE students typically receive SCE instruction five days per week for approximately 40 to 45 minutes per day. The duration of SCE instruction in reading and mathematics exceeds the amount of time the typical student receives Chapter 1 reading (35 minutes) and mathematics (30 minutes) instruction. However, these data should be interpreted cautiously due to the potentially large sampling error among SCE estimates (see standard errors presented on page B-33). With this in mind, the greater amount of special instructional time available to SCE students may suggest a slightly greater potential for SCE instruction to positively influence student achievement.

The increases in instructional time attributed to either SCE or Chapter 1 programs need to be considered in the context of the total amount of time students

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[19]Instructional group sizes reflect the number of students with whom a teacher is working during actual reading or math instruction. Instructional group sizes often do not equate with class sizes because most elementary teachers divide classes into smaller units to teach lessons.

[20]The interquartile range presents the values at the first and third quartiles. An interquartile range of 3 to 6 for instructional group size for reading means that approximately half of instructional groups consist of from 3 to 6 students while one-fourth of groups are less than three students and one-fourth of groups are greater than three students. The maximum group size reported for reading instruction was 20 students, while the minimum group size reported was one student.

receive instruction in reading and mathematics. The total amount of instructional time available to a student includes both remedial instruction as well as that received as part of the regular program. Evidence previously reported by the National Assessment shows that Chapter 1 students often miss academic instruction in the regular classroom as a consequence of their Chapter 1 participation (Birman, et al., 1987). Students are equally as likely to miss portions of regular class instruction when they participate in SCE instruction. Fifty-four percent of regular classroom teachers report that their SCE students miss regular reading instruction when they participate in the SCE program. The comparable figure for Chapter 1 teachers is 57 percent.

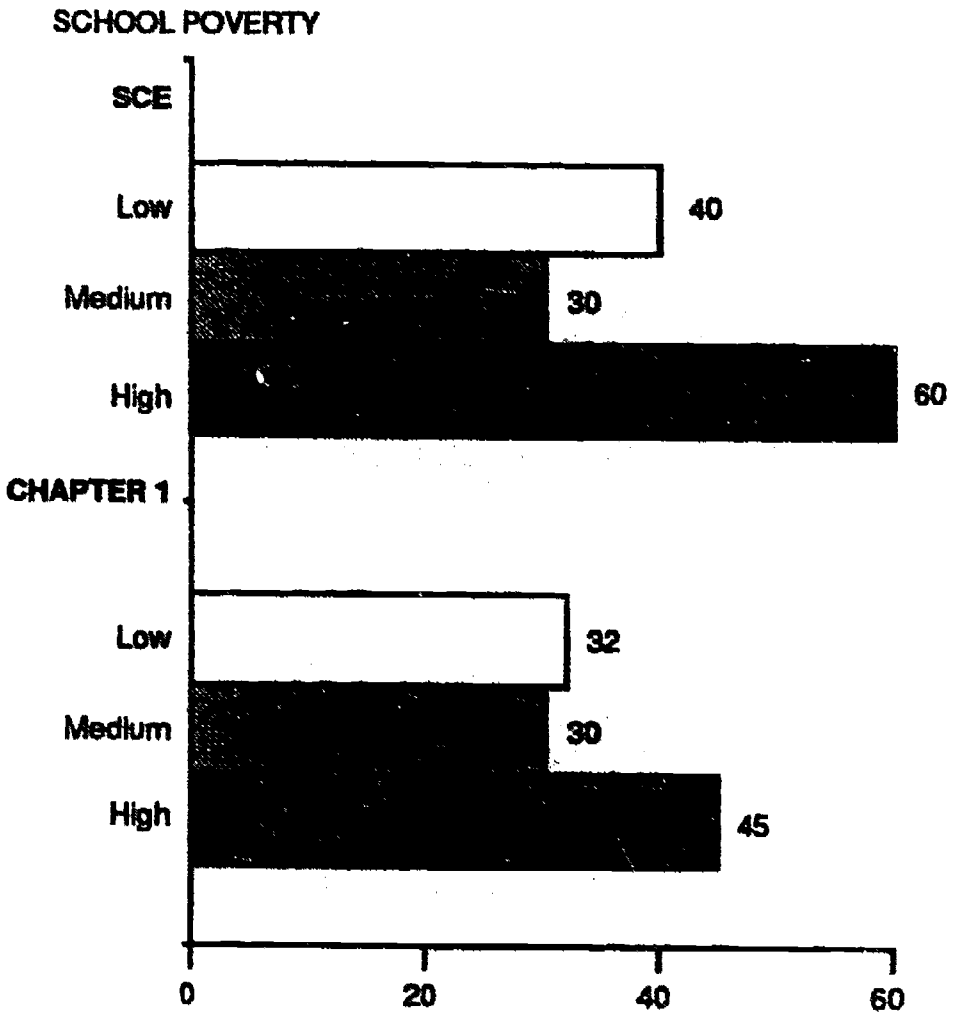
THE INFLUENCE OF POVERTY CONCENTRATION ON SCE SERVICES

Although evidence reported previously in this report shows that the distribution of SCE programs is influenced differently by school poverty levels than is the distribution of Chapter 1 programs, with one exception, the effective instructional features of both programs are influenced similarly by school poverty. The educational qualifications of teachers and days per week of instruction vary little with changes in school poverty. Like Chapter 1, SCE instructional time in reading is greater (60 minutes per day) in schools with higher concentrations of poverty than in schools with low concentrations of poverty (40 minutes per day). It is noteworthy, however, that although SCE and Chapter 1 instructional time increases in schools with high poverty levels, SCE instructional time usually exceeds Chapter 1 instructional time regardless of the concentration of poverty in the school (Figure 8).

The one difference in the effect of poverty on features of effective instruction explored across both programs is the size of the SCE instructional group, which drops from 5 or 6 students to 2 students in schools with low concentrations of poverty. Chapter 1 instructional group sizes do not exhibit this reduction in schools with low poverty levels.

FIGURE 8

Time Devoted To SCE And Chapter 1 Reading Instruction, By School Poverty Quartile[1], 1985-86



SOURCE: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86

Figure reads: In public elementary schools with a low percentage of poor students, the median minutes of SCE reading is 40 minutes.

[1] School poverty classifications are based on principals' reports of the percentage of students who were eligible for free or reduced priced lunches during the 1985-86 school year. School poverty categories (low, medium, and high) were derived by dividing the survey population into quartiles, and combining the middle two quartiles into one category. Categories are defined as follows: low (0-15 percent poor), medium (15.1-50 percent poor), and high (50.1-100 percent poor).

SUMMARY

Across many dimensions, instructional services provided by SCE programs resemble those provided under Chapter 1; only marginal differences are apparent. Whether these marginal differences have consequences for improving student achievement lies beyond the reach of available data. Nevertheless, the similarity of instruction reverses previous notions that lower levels of SCE funds (in relationship to Chapter 1 funds) result in less intense services for SCE students. In fact, SCE instructional services compare favorably with Chapter 1 services across features such as staffing patterns, teachers' educational qualifications, the availability of aides to assist teachers, and the size of instructional groups.

SCE instruction differs marginally from Chapter 1 in three areas, but the direction of these differences may offset any clear advantage of one program over the other. First, SCE teachers appear to teach a smaller number of students than Chapter 1 teachers. However, SCE teachers also typically perform more teaching and administrative duties in addition to their compensatory education assignments than do Chapter 1 teachers. Second, the educational levels of aides assisting SCE teachers is slightly higher than that of aides assisting Chapter 1 teachers, yet aides rarely provide direct instruction in either program. Finally, minutes of instructional time is the one area where SCE programs may hold a slight instructional advantage over Chapter 1 programs.

CHAPTER 3

CONCLUSIONS

This report provides a national profile of SCE programs in elementary schools. In contrast to previous explorations of SCE which relied on surveys of States or comparative case studies of districts offering SCE services, the information presented in this report is based on a nationally representative sample of Chapter 1 districts as well as a nationally representative sample of elementary schools, including interviews with a sample of SCE teachers in those schools. In addition, we included descriptive information about SCE programs from case studies.

The focus throughout tne report has been comparing and contrasting SCE services with those provided under the Federal Chapter 1 program. Historically, SCE programs and Chapter 1 (formerly Title I) have presented major challenges to Federal, State, and local officials who have sought to reduce conflicts and establish compatible relationships between these two programs that are aimed at remedial instruction for low achieving students. In many respects the findings contained in this report provide information relevant to the consequences of these efforts.

THE CONTEXT OF SCE PROGRAMS NATIONALLY

Districts and schools receiving SCE programs are in a subset of States. Although SCE programs have grown considerably in the last decade, they are present in only about two-fifths of the States. Recent estimates of the total funds allocated for SCE programs in these States total about a billion dollars, approximately one-third of the funding for compensatory education provided nationally by Chapter 1. Only slightly more than a third of districts and elementary schools across the nation operate SCE programs. Thus, for the majority of elementary schools and school districts in the nation, SCE programs are not a reality. (A portion of these districts and schools

without SCE programs may operate locally funded compensatory programs that are beyond the focus of this report.)

In those districts and schools where SCE programs do operate, however, they constitute an important increment in funds to assist low achieving students. SCE funds on average add about 71 percent to these districts' Chapter 1 compensatory education funds. In addition, since the overwhelming majority of these districts and schools also receive Chapter 1 funds, SCE programs pose questions for policymakers about how to distribute SCE as well as Chapter 1 resources among schools and within schools. These distributional issues historically have provoked considerable controversy at the Federal and State levels. These controversies primarily centered on maintaining school comparability and Title I students' fair share of state and local resources under the supplement, not supplant requirement. However, successive amendments of the Title I and Chapter 1 statute removed most legislative requirements aimed at ensuring that States and districts did not discriminate against Chapter 1 students in the distribution of SCE resources. Yet evidence indicates that States and districts have been slow to take advantage of the freedom to distribute SCE resources without regard to Chapter 1; many maintain special provisions directing the distribution of SCE resources to Chapter 1 schools.

SCE PROGRAMS AND SCHOOL POVERTY

A basic difference distinguishing SCE and Chapter 1 programs is the reliance of most SCE programs on achievement as a means of allocating resources across districts and schools. Chapter 1 funds are allocated according to measures of district and school poverty. Once Chapter 1 funds reach a school, determinations of student eligibility shift to measures of achievement. A consequence of this fundamental difference is the relatively low direct impact of poverty on the distribution of SCE programs across schools. SCE programs are present in roughly the same percentages of

schools when comparisons are made across school poverty quartiles. In contrast, Chapter 1 programs are more frequently located in those schools with the highest poverty concentrations. Similarly, when districts' SCE and Chapter 1 funds per enrolled student are analyzed, SCE dollars per enrolled student increase only slightly as district poverty increases. Chapter 1 funds per enrolled student increase in the poorest districts to a level much larger than what they are in the least poor districts.

At the school level, SCE programs enroll a relatively consistent percentage of students regardless of changes in the poverty concentration of the school. Chapter 1 enrollment percentages increase noticeably as the poverty of the school increases. It is important to note, however, that SCE programs are more evident in non-Chapter 1 schools with high poverty levels than they are in other non-Chapter 1 schools. This tendency is probably an outgrowth of several factors including SCE's emphasis on low achieving students who are more concentrated in such schools, districts' efforts to increase the reach of their compensatory programs to those schools that are needy but fail to make the Chapter 1 cutoff within the district, and district policies to set aside a portion of SCE funds for Chapter 1 eligible schools.

THE CONGRUENT NATURE OF SCE AND CHAPTER 1 PROGRAMS WITHIN ELEMENTARY SCHOOLS

At the school level, administrators confront decisions about how to operate both SCE and Chapter 1 services compatibly. Historically, considerable pressure existed to maintain separate programs in order to minimize potential violations of the supplement not supplant requirement. Techniques for separating SCE and Chapter 1 programs include setting different student achievement score cutoffs for each program, serving different grades or grade ranges with each program, or focusing on different subjects. In addition to pressures to separate the programs, district and school officials also face pressures based on considerations of need. If Chapter 1 programs already serve the

needs of students in particular grades or subjects, SCE funds may be better allocated to other grades where needs are unmet.

The information presented in this report contains evidence of instances of school districts attempting to separate SCE and Chapter 1 programs by the above mentioned measures. However, nationally representative survey data depict few systematic efforts across elementary schools to operate clearly separate programs. Although only a small percentage of schools (14 percent) report their SCE and Chapter 1 programs as indistinguishable, an even smaller percentage of schools (4 percent) report that SCE and Chapter 1 programs serve mutually exclusive grades. In most schools, the grades served by each subject overlap. Neither is there a pattern for Chapter 1 or SCE to support different subjects when both programs serve the same grade.

Some evidence from teachers' reports suggests that students served by SCE programs may be somewhat lower achieving as a group than Chapter 1 students. This finding may reflect a practice noted in case studies of districts using SCE funds to help the lowest achieving students (for example, those below the 25th percentile) and allowing Chapter 1 funds to serve the next lowest group of students. Nevertheless, over half of elementary schools report that SCE and Chapter 1 programs in their schools serve some of the same students.

The overall picture described by these findings is one of SCE and Chapter 1 services functioning in a fairly congruent fashion in the majority of elementary schools where both programs are present. Although efforts to separate the two programs exist, these do not appear common in the majority of schools. SCE and Chapter 1 funds appear to support services in the same elementary grades and same subjects within those grades, and in many elementary schools both programs serve some of the same students. Unfortunately, data about SCE services at the secondary school level

are unavailable; therefore, it is not possible to comment on the applicability of these findings to all grade levels.

SIMILARITIES AND DISSIMILARITIES BETWEEN SCE AND CHAPTER 1 INSTRUCTIONAL SERVICES

SCE programs resemble Chapter 1 programs in several ways. Like Chapter 1, most SCE programs rely on pullout approaches and teachers as the primary providers of instruction. Similar percentages of SCE and Chapter 1 teachers have the assistance of aides and aides are used by these teachers to perform the same functions. SCE teachers are similar to Chapter 1 teachers in holding specialist credentials, and have a similar number of years of experience. Both programs are characterized by small instructional groups of similar sizes.

One difference between SCE and Chapter 1 instruction is SCE programs' provision of slightly greater minutes per day of remedial instruction in reading and math. SCE teachers also have more teaching duties beyond compensatory education than do Chapter 1 teachers and fewer students for whom they are responsible.

Contrary to previous assumptions that SCE programs supported less intensive instructional services than Chapter 1, these data indicate that as far as instruction itself is concerned, SCE programs are similar to, and with respect to time, slightly more intense, than Chapter 1 instructional services. The similarity of SCE and Chapter 1 services may be explained by the fact that most SCE schools also provide Chapter 1. School officials are unlikely to vary what they believe are effective practices within the field of compensatory instruction merely because funding sources differ. This explanation, while convincing, still fails to explain the variation in minutes of instruction between the two programs. Future research efforts will need to confirm and address the reasons behind this finding.

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APPENDIX A

STATES INCLUDED IN THE SAMPLES OF SCE SCHOOL PRINCIPALS AND TEACHERS

Discussions on the State-level growth of SCE and descriptions of these programs in this report are based on previous research by Funkhouser and Moore (1985). They identified 19 States with SCE programs. The definition of SCE used to identify these States is a more restrictive one than has been used by other researchers; States must specify a target population as well as restrict district's discretion in spending SCE funds.

SCE district, elementary school and student-level analyses, however, are based on data from the National Assessment of Chapter 1 district, school principal and teacher surveys. There is some discrepancy between the States identified by Funkhouser and Moore, 1985, and those represented by the school principal and SCE teacher surveys; the following table displays the States in each of these samples.

SCE States Identified by Funkhouser & Moore, 1985	States Represented in the Elementary SCE School Principal Surveys	States Represented in the Elementary School SCE Teacher Survey
	AL	
CA	CA	CA
CT		
FL		
GA	GA	GA
	IA	
	ID	ID
	IL	IL
IN	IN	
KY		
LA	LA	LA
	MA	MA
MD	MD	MD
MI	MI	
	MO	MO
		MS
NC		
	NE	NE
NJ	NJ	NJ
NY	NY	NY
OH	OH	OH
PA	PA	
RI		
SC	SC	SC
TX	TX	TX
UT	UT	UT
WA	WA	WA
	VA	VA
	WI	
19 States	23 States	18 States

As shown, there are some instances where Funkhouser and Moore identified an SCE program in a State, but there were no elementary school principals surveyed in these States. Five of the 19 SCE States identified by Funkhouser and Moore are not included in the sample of SCE elementary school principals: CT; FL; KY; NC; and RI. These States are not included in our sample either due to the actual sampling plan, or due to the fact that we have excluded secondary SCE schools from our analyses.

Since SCE teachers were sampled from within schools where the principal indicated there was an SCE program, there are no SCE teachers from these same five States. In addition, however, there are no SCE elementary school teachers in the following States identified by Funkhouser and Moore: IN; MI; and PA. This occurs either because of non-response of SCE teachers or, again, because we excluded secondary SCE teachers from our analyses.

In addition, there are nine states (AL; IA; ID; IL; MA; MO; NE; VA; and WI) in which elementary school principals indicated and SCE program where Funkhouser and Moore identified none. This could happen because the definition of SCE presented to school principals was not as restrictive as that used by Funkhouser and Moore. Furthermore, in these States where there was an elementary SCE teacher who responded to the survey, there are States included in the sample of SCE elementary school teachers that were not identified by Funkhouser and Moore as having an SCE program.

APPENDIX B

DESCRIPTION OF SCHOOL AND DISTRICT SURVEY SAMPLES AND STANDARD ERROR CALCULATIONS

This technical appendix contains: a general description of the design and procedures of the School Survey and District Survey conducted for the National Assessment of Chapter 1, and a description of the methods for computing standard errors for this report, support tables that provide standard errors for estimates reported in figures and tables, and a list of standard errors for estimates cited in the text, but not cited in figures or tables.

NATIONAL SURVEY OF ECIA CHAPTER 1 SCHOOLS: DESIGN AND PROCEDURES

The School Survey was based on a sample of 1,200 elementary and secondary schools selected from a random, stratified sample of primary sampling units (PSUs) composed of school districts. Approximately 4,000 respondents were selected from these schools to obtain profiles which were nationally representative of Chapter 1 elementary and secondary schools as well as of all elementary schools. In addition, data from these respondents were used to estimate variations among Chapter 1 schools and all elementary schools as well as between Chapter 1 and non-Chapter 1 schools along selected dimensions of interest, such as school poverty rates.

Sample Design and Weighting Coefficients

Selection of School Districts

The sampling frame employed in the selection of sample school districts was the 1985 Quality Education Data (QED) school file aggregated to the district level. This file contained a comprehensive and current listing of school districts and characteristics of interest.

To achieve adequate representation of different types of school districts, three stratification variables were employed for organizing the district listings prior to selection: region, urbanicity, and Orshansky poverty index. Region was assigned to a school district in accordance with the four Census regions: Northeast, North Central, South, and West. Urbanicity, as contained on the QED tape, codes a school district as being located in an urban area, a suburban area, or rural area. Three groups were identified by the third stratification variable, the Orshansky poverty index, available from the Census by school district. The three levels were: (1) districts with 12 percent or fewer students below the poverty level, (2) districts with more than 12 percent but less than 25 percent of students below the poverty level, and (3) districts with 25 percent of more students below the poverty level. Thirty-six strata were created by the use of the three stratifying variables.

Primary sampling units (PSUs) were formed from school districts within these strata. A school district with 15 or more schools constituted a PSU. Within each stratum, districts with fewer than 15 schools were combined to form PSUs. School districts within a State were joined until the combined number of schools was at least 15. These PSUs, therefore, had a minimum number of 15 schools though the number of school districts they represented varied somewhat.

The sample of 71 PSUs was allocated to the strata in proportion to the numbers of teachers each stratum contained. The selection of PSUs within strata was accomplished by systematic random sampling with probabilities proportionate to size (PPS), with size defined as the total number of teachers in its school district(s). The sample of 71 PSUs drawn in this manner yielded 224 school districts.

Second Stage Sampling: Schools

A total of 1,200 schools was selected from the first-stage sample of school districts. Of the 1,200 schools, 700 were from the public elementary stratum, 100 from

the private elementary stratum, and 300 from the public secondary stratum (including middle schools). In addition, 50 Chapter 1 public schools serving limited English proficient students and 50 Chapter 1 public schools serving very high concentrations of low-income students were distributed across elementary and secondary levels. The school districts were ordered by characteristics of importance to ensure adequate representation of these types of districts.

Sampling Frame for Schools. Once a district had been selected, a copy of its most recent Chapter 1 application was obtained from the appropriate State Chapter 1 Office. This provided the basic stratifying information for the school sampling frame, as described in the next section. Stratifying variables included grade span, sources of funding, number of students with limited English proficiency (LEP), and poverty level of school. These data were obtained for all public schools in the district, and for private schools with students who were receiving Chapter 1 services.

Stratification Scheme for Schools. The school sampling frame was stratified by the following characteristics: public/private control; Chapter 1/non-Chapter 1; elementary/middle/secondary; within the public stratum by presence/absence of LEP population and by presence/absence of high degree of poverty; and within the non-Chapter 1 stratum by student population similarity/nonsimilarity to Chapter 1 poverty characteristics.

Allocation of Schools to Strata The sample of 1,200 schools was allocated to the strata as described below. Because one of the sampled private schools was no longer in operation, the final sample contained 99 rather than 100 private schools. The final sample, then contained 1,199 schools across 165 school districts. It was not a condition that schools be selected from each of the 224 school districts in the sample.

Eleven hundred public schools were selected: 600 Chapter 1 and 500 non-Chapter 1 schools. Of the 600 public Chapter 1 schools, 50 were selected as schools

with particularly high concentrations (>85 percent) of low-income children, and 50 were selected as LEP population schools. The final distribution of Chapter 1 public schools was as follows: 385 Chapter 1 elementary, 100 Chapter 1 middle, and 115 Chapter 1 secondary schools.

The sample of 500 public non-Chapter 1 schools contained 300 schools with poverty populations similar to Chapter 1 schools (200 elementary and 100 middle/ secondary schools) and 200 (elementary) schools with nonsimilar populations. Although the non-Chapter 1 sample was not drawn with regard to LEP population, the non-Chapter 1 portion of the sample contained 45 elementary schools with 200 or more LEP students in each.

The 99 sampled private elementary schools were selected from district lists of private schools which, as of the spring of 1985, were projected to contain students who would be receiving Chapter 1 services during the 1985-86 school year. Since a number of changes were made in the way in which Chapter 1 services were provided to non-public school students during the course of this school year, a number of the sample private schools no longer had students receiving Chapter 1 services when the survey took place. For these schools, responses to the principal questionnaire were obtained, but attempts to interview Chapter 1 or regular classroom teachers were not made.

Third Stage Sampling: Respondents

The final stage in selecting the sample for this study involved the stratified random sampling of staff members from within the sampled schools. The principal of each school was selected as a respondent, along with a variable number of teachers. The exact method and sample size for teachers within a school varied according to characteristics of the school.

Sampling Frame for Respondents. Teaching staff lists generated by the schools' principals were used for the random selection of respondents from sampled schools. Teachers were categorized by respondent type as detailed below. Because the sampling design required that a teacher be listed in only one category, an order of priority was employed, and each teacher was listed in the first category in which she/he qualified. This priority ordering of teachers was as follows:

- Chapter 1;
- State compensatory education;
- Other compensatory or remedial education
- Special services to LEP students
- Services to mildly handicapped students; and
- Regular classroom (a teacher having at least one student receiving services from a teacher in one of the above categories).

Selection of Respondents. Random sampling of respondents from teacher lists was done by the principal of each school and a telephone interviewer. Once the principal had listed the school's teachers according to the above categories, the telephone interviewer provided random numbers for the selection of up to two Chapter 1 teachers (or one Chapter 1 aide if there were no qualifying Chapter 1 teachers) and the selection of one teacher in each of the other existing categories in the given school.

In some school districts, the Chapter 1 district office preferred to supply the names of Chapter 1 teachers providing services in private schools, rather than have this information obtained from the private schools directly. In those cases, Chapter 1 teacher lists were compiled for each sampled private school in the district, and selection of up to two Chapter 1 teachers for each school was done randomly.

Instrument Design and Pretest

Data Collection Modes

The first step in eliciting school cooperation was sending a letter to each school that laid out the plan for sampling and subsequent interviewing. Because the sample required schools to be aware of special teacher definitions, as well as the hierarchical sampling scheme, detailed instructions were sent with the initial mailing. In the interest of time, the strategy was for principals (or the coordinators they designated) to assemble lists of teachers in appropriate categories, and for telephone interviewers to sample teachers from these listings (using random numbers) over the telephone.

Questionnaire Design

A mail questionnaire with the following content areas was developed to collect data from public school principals: a description of Chapter 1 services, a description of the school's regular instructional program, a description of other special programs in the school (compensatory education other than Chapter 1, services for limited-English-proficient (LEP) students, and services for mildly handicapped students), staff characteristics, mechanisms for coordinating services within the school, and a general description of the school. A subset of the same items constituted the private-school version of the principal questionnaire (omitting the descriptions of services other than Chapter 1 and the regular instructional program).

Five teacher questionnaires were developed for interviewing the five categories of teachers who were selected for the study within the sampled schools. Teachers were asked about: the services of the program in which they taught (Chapter 1, other compensatory or remedial education, limited-English-proficient, mildly handicapped, or the regular instructional program); their education, training, and experience; and the coordination of their services with other services in the school.

Data Collection Activities in Support of Sampling

Communication with States

The communication protocol followed for this study included notifying States regarding which districts were sampled as part of the primary sampling units, and notifying districts and States regarding sampled schools.

Notifying States of Selected Districts

At the request of the National Assessment of Chapter 1 Study staff, each State's chief school officer had already appointed a liaison to all of the Chapter 1 studies--most often the State's Chapter 1 Director. The first stage of sampling resulted in a sample of 224 districts in 30 States. Each State liaison was notified of the sampled districts within his/her individual State. At the same time, a copy of the most recent Chapter 1 funding application submitted by each identified districts was requested--for the purpose of identifying the Chapter 1 and non-Chapter 1 schools within each district.

Notifying States and Districts of Selected Schools

The second stage of sampling resulted in a sample of 1,199 schools in 30 States. Each district was notified of the sampled schools in that district; at the same time, each State liaison received a copy of the district notification letter and list of sampled schools for each district in that State.

Communication with Sampled Schools

As soon as the sample of 1,199 schools was drawn, a listing of the sampled schools was sent to the relevant district and to the state Chapter 1 liaison, followed a week later by a letter to the school. The mailout also asked the principal to name a coordinator to help in the teacher sampling and later in scheduling teacher interviews.

The letter also provided instructions for compiling the lists of teachers for use in randomly selecting participating teachers (in the subsequent "sampling call").

Data Collection: Interviews of Principals and Teachers

Principals and teachers in 1,199 Chapter 1 and non-Chapter 1 schools nationwide were surveyed during the Spring of 1986. Principals responded to a mail questionnaire, while teacher interviews were conducted over the telephone. A total of 1,145 principal questionnaires were mailed, 1,046 of these to public school principals and 99 to private school principals.

Telephone interviews with the sampled teachers were conducted during April and May 1986. A staff of 30 telephone interviewers was trained to conduct these interviews.

Sample Membership and Response Rates

School Level Participation Rates

The percentage of schools that agreed to participate in the study was as follows: 92.6 percent of the private schools, 97.0 percent of the Chapter 1 public schools, and 90.3 percent of the non-Chapter 1 public schools.

The 1,110 participating schools provided the information necessary for sampling teacher respondents in carefully specified categories, and teachers were sampled in 1,044 of those schools. In the remaining 66 schools, no teachers were eligible for any of the study's teacher categories. Those schools remained in the sample and were asked to respond to the principal questionnaire; however, no teachers were sampled or interviewed there.

Principal Questionnaire Response Rates

In all, principal questionnaires were mailed to 1,145 schools. A response rate of 87.4 percent was attained overall for the principal questionnaire with individual item

response rates consistently above 90 percent. On average, response rates were slightly higher in Chapter 1 schools than in non-Chapter 1 schools.

Teacher Survey Response Rates

Teacher interviews were conducted by telephone with teachers sampled within the six teacher categories. All together, 3,134 teachers were sampled, with an average of three teachers sampled per school. More than 97 percent of the 3,134 sampled teachers responded to the telephone interview with individual item response rates consistently over 95 percent.

Population Estimation Procedures

Estimates of several types, including estimates of totals, percentages, means and medians were made for the National Survey of ECIA Chapter 1 Schools. Estimates of totals were derived from weighted sums of the values reported by responding schools or teachers. Percentages and means were then estimated as the ratios of two estimates of totals. The weights used depended on the probabilities of selection of the schools or teachers and on the rates of response in the strata of the samples.

NATIONAL SURVEY OF SCHOOL DISTRICTS RECEIVING ECIA CHAPTER 1: DESIGN AND PROCEDURES

The District Survey was conducted during the Spring of 1986, based on a nationally representative sample of 2,200 local school districts (for the mail survey) and a subsample of 267 of those districts (for the telephone survey). Of the 2,200 districts sampled, 2,161 were currently receiving Chapter 1 funds and were thus eligible to complete the questionnaire. Surveys were completed by local Chapter 1 coordinators or officials in the district who were considered most knowledgeable about the program. The survey results provide nationally representative estimates of district Chapter 1 policies, practices and attitudes as well as of variations along selected dimensions of interest such as district poverty rates.

Sample Design and Weighting Coefficients

Selection of School Districts

The sample of 2,200 public school districts was drawn from a population file created from the 1985 updated version of the Quality Education Data (QED), school district file.

In determining the sample design for the Chapter 1 District Survey, a number of factors were taken into consideration. These were:

- The desire to obtain estimates of reasonable precision for districts falling in different size classifications, as well as for estimates at the national level.
- The desire to incorporate the Orshansky poverty measure criterion into the stratification scheme, in an effort to help secure an adequate representation of those districts at the higher end of the poverty scale.
- The desire to send out approximately 2,000 questionnaires nationwide, understanding that roughly 12 percent of all districts on the sampling frame will be non-Chapter 1 districts.

Based on these considerations, the sampling frame was partitioned into 24 strata, 8 enrollment size classes and 3 classes based on the Orshansky measures of poverty.

The classes were defined as follows:

Enrollment Size Class	Orshansky Poverty Measure Class
25,000 and over	25.0 percent and over
10,000 - 24,999	12 - 24.9 percent
5,000 - 9,999	0 - 11.9 percent
2,500 - 4,999	
1,000 - 2,499	
600 - 999	
300 - 599	
1 - 299	

The enrollment and poverty classes were identical to those employed in a 1981 survey of local program administrators (Advanced Technology, 1983). This was done to facilitate within-class longitudinal comparisons for selected items common to both surveys.

Two thousand two hundred districts were selected from this sample frame. Because a sufficient number of districts from the smallest enrollment classes were desired, the allocation for the six smallest enrollment size classes was assigned proportionate to the square root of the average enrollment size for a district within an enrollment class (rather than proportionate to the average enrollment size itself). Districts from the two largest enrollment size classes were taken with certainty.

The allocation scheme appears below:

Enrollment Size Class	Population Size	Number to Districts to be Selected
25,000 and over	167	167
10,000 - 24,999	452	452
5,000 - 9,999	957	542
2,500 - 4,999	1,931	386
1,000 - 2,499	3,561	264
600 - 999	1,825	183
300 - 599	2,316	136
1 - 299	3,709	70

Within the three smallest enrollment size classes, the sampling rates were determined so that the desired sample size for enrollment class "i" would be obtained while oversampling poorer districts. Orshansky class "0-11.9 percent" was sampled at rate r_i, Orshansky class 12-24.9 percent was sampled at rate 1.5 r_i, and Orshansky class "25 percent and over" was sampled at rate $2r_i$. In so doing, the sampling variability for national estimates was increased slightly while the number of sampled districts in enrollment class groups "1 to 1,000" within an Orshansky measure of "25 percent or more" was increased by 50 percent (from 62 to 102), thus increasing the likelihood of eligible districts being selected and increasing the precision of estimates based on the higher Orshansky classes. The five largest enrollment classes were sampled with equal probability of selection within a class.

Once the sample was selected, a systematic assignment of questionnaire types was made. Each consecutive grouping of three sampled districts was assigned to receive questionnaire types C, A, and B in that order throughout the list of all sampled districts. Finally, a systematic (equal probability) sample of 267 from the 2,200 sampled districts was selected for participation in the telephone survey associated with the main survey. The mail survey sample districts were arranged in selection order prior to drawing the subsample, thus assuring the representation of original stratification characteristics within the telephone survey districts as well.

Weighting Coefficients

The weights for the full sample are very straightforward. In each enrollment group/poverty group cell a systematic random sample was drawn with each district in the cell having the same probability of selection. The probability of selection of a district in a cell is simply the number of districts sampled from the cell divided by the number of districts in the cell. The unadjusted weight is the inverse of this number. A nonresponse adjustment based on the number of nonresponding districts in a cell was

slight because there was so little nonresponse. No adjustments were made for item nonresponse because individual item response rates were consistently between 85 and 95 percent.

Most data items appear in only two of the three questionnaires because it was felt that the burden on the districts would be too great if all items were asked of all districts. Questionnaire A contains some items that are common to the items on questionnaire B and another set common to questionnaire C. The questionnaires were assigned systematically to the units within a cell, so each questionnaire is a stratified, systematic sample of size one-third of the full sample.

Instrument Design

The mail survey instruments consisted of three versions (A, B, and C) of a questionnaire, containing a total of 79 items. The sample of 2,200 districts was randomly divided into three subsamples, each of which received one version of the questionnaire. Twenty-two of the items appeared on all three versions; the remaining 57 items appeared on two versions each. Thus, each item was contained in at least two, if not three, of the questionnaires; and each questionnaire was received by one-third of the sample.

The topics covered by each questionnaire are listed below:

Version A:

- Background information
- Selecting attendance areas, schools, and students
- Program design
- Program evaluation, assessment of sustained effects, and needs assessment
- General information
- Program management (partial)

Version B:

- Background information
- Selecting attendance areas, schools, and students
- Parental involvement
- Program management
- General information

Version C:

- Background information
- Program design
- Program evaluation, assessment of sustained effects, and needs assessment
- Parental involvement
- Program management
- General information

As noted earlier, a subset of items was replicated from a 1981 survey of local program administrators (Advanced Technology, 1983) to allow for comparisons over time in selected areas of interest.

As an adjunct to the mail questionnaires, a set of "key items" was prepared for each version, for administration by telephone to those districts who were unable or unwilling to respond to the complete mail questionnaire during the data collection period.

Data Collection Procedures and Response Statistics

The survey procedures included letters of notification sent to State and district offices, letters and self-administered mail questionnaires distributed to Chapter 1 Coordinators in sampled districts, postcard reminders, 20 minute key item followup to nonrespondents conducted by telephone, and telephone data retrieval.

Approximately one week before the Chapter 1 District Survey began, letters describing the nature and importance of the study were sent to State Chapter 1 liaisons. This letter included a list of all districts sampled in each liaison's State. Letters were also sent to district superintendents in all selected districts.

Postcard Prompt

Approximately 10 days after the initial mailing, all districts were sent a postcard reminder asking them to complete and return the questionnaire. The postcard provided a toll-free number and the name of the survey operations manager to contact in the event that a questionnaire had not been received by the district. Questionnaires were remailed immediately to all respondents requesting another copy.

Telephone Prompts

Telephone prompt calls were made to all districts that had not responded to the initial mailings. A response rate of 88 percent was achieved. Chapter 1 district coordinators who had not returned questionnaires were contacted to participate in a 20 minute interview of key items appearing on the original questionnaire version for which their district had been selected. These interviews increased the response rate by 11 percent, to 99 percent for key survey items. Of particular importance, key item data were obtained from some very large districts which otherwise would have been lost. Responses were evenly distributed across the three questionnaire versions.

Population Estimation Procedures

Estimates of several types, including estimates of totals, percentages and means were made for the National Survey of School Districts receiving ECIA Chapter 1. Estimates of totals were derived from weighted sums of the values reported by district officials. Percentages and means were then estimated as the ratios of two estimates of

totals. The weights depended on probability of selection and on the rates of response in sample strata.

METHODS USED FOR SAMPLING ERROR CALCULATION

Estimating Sampling Errors for Survey Estimates

The calculation of sampling errors of survey estimates involved two steps. First, standard errors were computed under the assumption of simple random sampling. Next, each standard error was multiplied by a design effect factor. Average design effects for estimates from the School Survey were calculated from sampling errors based on a modified balanced repeated replication method completed by Westat, Inc. for the National Survey of ECIA Chapter 1 Schools. For estimates of proportions from teacher questionnaires a design effect of 1.37 was used; a design effect factor of 1.21 was used for estimates of proportions from the principal questionnaire.

Westat, Inc. also conducted an extensive examination of design effect factors for estimates of proportions and means for the National Survey of ECIA Chapter 1 Districts. A design effect factors is 2.3 was applied to estimate proportions presented for the overall population; for estimates of means a conservative average factor of 2.7 was used.

Estimating the Variance of a Sample Median

Variances for sample medians were computed using Woodruffs' method. The formula is as follows: let x_m be the sample median of the variable x for some group A. Define r_L=proportion of group A with a value of x less than or equal to x_m and r_U=proportion of group A with a value of x greater than or equal to x_m. Using results from the modified BRR conducted by Westat, Inc., the standard errors s_L and s_U of r_L and r_U were estimated. They were then averaged to get $s=(s_L + s_U)/2$. Let $q_L=.5-s$ and $q_U=.5+s$. By interpolation, x_L and x_U were found such that:

$P(x < x_L) = q_L$ or smaller,

$P(x > x_L) = 1 - q_L$ or smaller,

$P(x < x_U) = q_U$ or smaller, and

$P(x > x_U) = 1 - q_U$ or smaller.

The estimated standard error of x_m is then $(x_U - x_L)/2$.

Since Woodruff's method assumes that the variable being examined is continuous, or nearly so, the theoretical basis is undermined in those cases where there are ties in the distribution (i.e., multiple occurrence of the same value).

SUPPORT TABLES FOR FIGURES PRESENTED IN REPORT

Support Table for FIGURE 1

The Presence of SCE Across Public Elementary Schools, 1985-86

Public Elementary Schools	Percentage with SCE	Standard Error
All public elementary schools	34	2.2
Chapter 1 schools	37	3.1
Non-Chapter 1 schools	26	3.0

The Presence of Chapter 1 Across Public Elementary Schools with SCE

Public Elementary Schools	Percentage with Chapter 1	Standard Error
All SCE schools	82	3.0

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Support Table for FIGURE 2

Percent of Public Elementary Schools Providing Chapter 1 and SCE Services, by School Poverty Quartile[a/], 1985-86

School Poverty Quartile	Percent of Public Elementary Schools			
	With Chapter 1	Standard Error	With SCE	Standard Error
Lowest	57	6.4	33	4.4
Second lowest	76	4.9	31	4.6
Second highest	86	4.2	34	4.5
Highest	87	3.3	37	4.2

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year.

Support Table for FIGURE 3

Presence of SCE in Chapter 1 vs. Non-Chapter 1 Schools, by School Poverty Quartile[a/], 1985-86

School Poverty Quartile	Percent of Public Elementary Schools with SCE			
	With Chapter 1	Standard Error	Without Chapter 1	Standard Error
Lowest	42	7.8	22	4.8
Second lowest	37	6.9	15	4.9
Second highest	35	6.0	32	6.8
Highest	35	5.0	53	7.7

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year.

Support Table for FIGURE 4

Percent of Public Schools that Offer SCE and Chapter 1 Services by Grade, 1985-86

Grade	Percent of Public Schools			
	Offer Chapter 1	Standard Error	Offer SCE	Standard Error
Kindergarten	27	3.3	41	3.9
Grade 1	82	4.2	70	3.7
2	97	1.3	75	3.5
3	94	2.0	83	3.0
4	94	1.8	88	2.6
5	87	3.5	86	2.9
6	83	4.0	85	3.5

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Support Table for FIGURE 5

Subjects and Combinations of Subjects Offered as Part of SCE and Chapter 1 Services in Public Elementary Schools, as Reported by School Principals, 1985-86

Subjects	Percent of Public Elementary School Principals			
	SCE	Standard Error	Chapter 1	Standard Error
Subjects				
Reading	92	2.1	97	1.2
Mathematics	86	2.7	63	4.4
Language Arts	54	3.9	32	3.5
Combinations of Subjects				
Reading alone	5	1.6	27	2.9
Mathematics alone	4	1.5	2	0.9
2-3 subjects	72	3.5	63	4.4
All four subjects	18	3.0	8	2.4

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Support Table for FIGURE 6

Settings in Which SCE and Chapter 1 Reading and Mathematics are Provided by Public Elementary Schools, as Reported by School Principals, 1985-86

Type of Setting	Percent of Public SCE Elementary Schools	Standard Error	Percent of Public Chapter 1 Elementary Schools	Standard Error
Reading				
In class	34	4.0	28	2.6
Limited pullout	75	3.7	84	2.1
Extended pullout	18	3.3	12	2.7
Replacement	6	2.0	3	1.3
Before/after school	3	1.3	2	0.8
Summer school	9	2.5	10	2.7
Schoolwide	8	2.3	5	1.3
Mathematics				
In class	38	4.5	36	3.9
Limited pullout	75	4.0	76	2.0
Extended pullout	18	3.6	14	3.0
Replacement	7	2.4	4	1.8
Before/after school	4	1.7	2	1.0
Summer school	9	2.6	10	2.9
Schoolwide	9	2.6	6	1.3

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Support Table for FIGURE 7

Staffing Patterns that "Best Describe" SCE and Chapter 1 Instructional Services in Public Elementary Schools, as Reported by School Principals, 1985-86

Staffing Patterns	Percent of Public SCE Elementary Schools	Standard Error	Percent of Public Chapter 1 Elementary Schools	Standard Error
Reading				
Compensatory education teacher with aide	--	--	41	4.6
Compensatory education teacher with no aide	40	4.1	37	5.5
Regular teacher with compensatory education aide	19	3.3	16	3.2
Compensatory education aide with no teacher	6	2.0	6	2.3
Mathematics				
Compensatory education teacher with aide	--	--	38	5.1
Compensatory education teacher with no aide	35	4.5	32	4.8
Regular teacher with compensatory education aide	16	3.4	19	4.1
Compensatory education aide with no teacher	8	2.5	9	3.5

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Support Table for FIGURE 8

Time Devoted to SCE and Chapter 1 Reading Instruction, by School Poverty[a/], 1985-86

School Poverty Level	Median Minutes of Reading Instruction in Public Elementary Schools			
	SCE	Standard Error	Chapter 1	Standard Error
Low	40	7.9	32	3.3
Medium	30	5.9	30	1.9
High	60	22.6	45	0.8

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ School poverty classifications are based on principal's reports of the percent of students who were eligible for free or reduced priced lunches during the 1985-86 school year. School poverty categories (low, medium and high) were derived by dividing the survey population into quartiles, and combining the middle two quartiles into one category. Categories are defined as follows: low (0 - 15 percent poor), medium (15.1 - 50 percent poor) and high (50.1 - 100 percent poor).

SUPPORT TABLES FOR TABLES PRESENTED IN REPORT

Support Table for TABLE 1

District Funding for SCE and Chapter 1, by Poverty Quartile[a/], 1986-86

School Poverty Level	SCE	Standard Error	Chapter 1	Standard Error
Average $/student enrolled	$53	6.5	$ 85	3.8
Average $/student enrolled by poverty quartile				
0 - 15 percent poor	$53	9.1	$ 71	4.0
15.1 - 30 percent poor	$54	9.3	$ 70	6.1
39.1 - 50 percent poor	$39	12.5	$ 95	8.4
50.1 - 100 percent poor	$60	15.2	$122	9.3

N = 527 (sample of districts that receive only SCE as opposed to SCE and locally-funded CE), 2091 (sample of districts that receive Chapter 1). Table values based on weighted data.

Source: Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86.

a/ This is district funding for SCE in Chapter 1 districts. The 10 percent of districts that do not get Chapter 1 are predominately very small districts (Birman, et al., 1987). In addition, these figures reflect only those districts that receive SCE as opposed to those that receive both SCE and locally-funded CE; we were unable to differentiate between the two budgets in these districts. District survey data indicate that locally-funded CE is provided most often to districts in the lowest quartile of poverty.

Table reads: The average amount of SCE funds spent per student is $53. The average amount of Chapter 1 funds spent per student is $85.

Support Table for TABLE 2

SCE and Chapter 1 Student Selection and Use of Minimum Competency Tests, as Reported by School Principals, 1985-86

Use of Minimum Competency Tests	Percent of Public Elementary Schools			
	SCE	Standard Error	Chapter 1	Standard Error
Administer Tests	70	3.6	60	3.2
Tests Influence Receipt of Service	76	4.2	67	3.1
All Students Scoring Below Minimum Competency are Eligible for Service	75	4.2	57	3.3

N = 241 (sample of public elementary schools with SCE programs), 348 (sample of those with Chapter 1 programs). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Table reads: Minimum competency tests are administered in 70 percent of all public elementary schools with SCE programs. These tests are administered in 60 percent of schools with Chapter 1 programs.

Support Table for TABLE 3

Median Percent of Students Receiving SCE and Chapter 1 in Public Elementary Schools Offering the Programs, as Reported by School Principals, 1985-86

	Median Percent Receiving SCE	Standard Error	Median Percent Receiving Chapter 1	Standard Error
All schools with program	12	2.2	18	1.7
All schools with program By Poverty Quartile:				
0 - 15 percent poor	11	5.4	12	2.9
15.1 - 30 percent poor	8	2.2	16	3.0
30.1 - 50 percent poor	16	3.0	20	3.3
50.1 - 100 percent poor	12	3.0	26	2.8
Chapter 1 schools with SCE By Poverty Quartile:	12	2.5	18	2.0
0 - 15 percent poor	12	7.0	14	3.7
15.1 - 30 percent poor	8	4.7	16	4.0
30.1 - 50 percent poor	15	7.9	20	6.8
50.1 - 100 percent poor	10	4.4	28	10.7
Non-Chapter 1 schools with SCE By Poverty Quartile:	10	4.1	--	
0 - 15 percent poor	7	4.2		
15.1 - 30 percent poor	8	3.6		
30.1 - 50 percent poor	20	8.2		
50.1 - 100 percent poor	32	9.5		

N = 236 (sample of SCE public elementary school principals, 358 (sample of Chapter 1 public elementary school principals). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Table reads: The median percent of students receiving SCE in public elementary schools with an SCE program is 12. The median percent receiving Chapter 1 in schools with a Chapter 1 program is 18.

Support Table for TABLE 4

Educational Attainment of Compensatory Education and Regular Teachers in Public Elementary Schools, 1985-86

Instructor Level of Education	Percent of SCE Teachers	Standard Error	Percent of Chapter 1 Teachers	Standard Error	Percent of Regular Teachers	Standard Error
Teachers						
Level of Schooling:						
Beyond MA	9	3.5	15	2.6	14	2.0
MA	37	5.9	36	2.8	31	3.9
Beyond BA	39	5.9	29	2.5	35	3.7
BA	15	4.3	21	3.3	20	1.9
	100%		100%		100%	
Specialist Certificate or Credential						
Any certificate or credential	44	6.0	54	2.7	23	3.0
Reading	24	7.0	69	5.0	28	3.2
Experience						
Median years of teaching experience	14	2.9	13	0	14	0

N = 127 (sample of SCE teachers in public elementary schools), 621 (sample of Chapter 1 teachers in public elementary schools), 363 (sample of regular teachers in public elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ Percents may not sum to 100 due to rounding

Support Table for TABLE 5

Tasks Performed by SCE and Chapter 1 Aides in Public Elementary Schools, As Reported by Teachers 1985-86

Duties of Aides	Percent of SCE Teachers	Standard Error	Percent of Chapter 1 Teachers/ Aides	Standard Error
Assist students with classroom work assigned by teacher	99	2.6	93	1.6
Give feedback to students about their work	99	2.6	93	2.1
Correct students' work	83	8.2	82	5.7
Assist teacher in non-instructional tasks	75	9.4	71	6.2
Provide instruction independently of teacher	35	10.4	44	3.8
Assign classwork to students	37	10.4	34	2.5

N = 40 (sample of SCE teachers in public elementary schools), 621 (sample of Chapter 1 teachers/aides in public elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Table reads: Ninety-nine percent of SCE teachers who have the assistance of aides in public elementary schools report that aides assist students with classroom work assigned by a teacher.

Support Table for TABLE 6

Instructional Time and Group Size for SCE and Chapter 1 Reading and Mathematics, as Reported by Teachers, 1985-86

Instructional Time and Group Size by Subject	SCE Public Elementary Teachers			Chapter 1 Public Elementary Teachers		
	Median	Inter-quartile Range	Standard Error	Median	Inter-quartile Range	Standard Error
Reading						
Size of instructional groups	6	3 to 6	0.9	5	3 to 7	0.4
Days per week	5	5 to 5	0.2	5	5 to 5	0.0a/
Minutes per day	40	30 to 60	7.1	35	30 to 50	5.0
Mathematics						
Size of instructional groups	6	3 to 8	1.4	5	3 to 8	0.6
Days per week	5	5 to 5	0.2	5	5 to 5	0.0a/
Minutes per day	45	30 to 60	13.8	30	30 to 50	2.5

N = 109 (sample of SCE reading teachers in public elementary schools), 83 (sample of SCE mathematics teachers), 403 (sample of Chapter 1 reading teachers in public elementary schools), 238 (sample of Chapter 1 mathematics teachers in public elementary schools).

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Table reads: According to SCE teachers in public elementary schools, the median number of students in an instructional group during SCE reading is 6.

a/ A standard error of zero shows that there is no variability in estimates of the median in replicate samples.

STANDARD ERRORS FOR TEXT CITATIONS

Standard Errors for Text Citations

The following are standard errors for text citations that do not appear in tables in the report.

Page	Descriptor	Estimate	Standard Error
1	Percent of all public elementary schools that offer SCE services	34	2.2
1	Median percent of students enrolled in public elementary schools offering SCE services that participate in SCE programs	12	2.1
1	Percent of all public elementary schools served by Chapter 1	75	2.4
1	Median percent of students enrolled in public elementary schools offering Chapter 1 services that participate in Chapter 1 programs	18	1.7
8	Percent of districts receiving SCE funds, 1985-86--lowest school poverty quartile	35	6.8
8	Percent of districts receiving SCE funds, 1985-86--highest school poverty quartile	46	8.7
16	Percent of public elementary school principals that report that SCE and Chapter 1 are operated as a merged program	14	3.5
17	Percent of all public elementary schools with both SCE and Chapter 1 that provide both services to all of the same grades	30	5.0
17	Percent of public elementary schools with SCE and Chapter 1 with the focus of the two programs on entirely separate grades	4	6.8
20	Percent of public elementary school principals that report that scores on reading, language arts or math tests are used for selecting students to participate in SCE	88	2.7

Page	Descriptor	Estimate	Standard Error
20	Percent of public elementary school principals that report that a recommendation from the classroom teacher is used for selecting students to participate in SCE	61	4.0
22	Percent of public elementary school principals in schools that offer both SCE and Chapter 1 who report that the two programs serve some of the same students	61	5.0
22	The percent of public elementary schools that offer Chapter 1 and SCE in the same grades and that offer both Chapter 1 and SCE reading in those grades	77	2.7
22	The percent of public elementary schools that offer Chapter 1 and SCE in the same grades and that offer both Chapter 1 and SCE mathematics in those grades	71	2.9
24	Percent of SCE reading students who are reported by SCE reading teachers to fall below the 50th percentile in reading	100	0
24	Percent of Chapter 1 reading students who are reported by Chapter 1 reading teachers to fall below the 50th percentile in reading	73	3.0
24	Percent of SCE math students who are reported by SCE math teachers to fall below the 50th percentile in math	100	0
24	Percent of Chapter 1 math students who are reported by Chapter 1 math teachers to fall below the 50th percentile in math	46	4.4
32	Median caseload of SCE teachers in public elementary schools	20	1.5
32	Median caseload of Chapter 1 teachers in public elementary schools	31	5.0
32	Percentage of SCE teachers in public elementary schools with other teaching	63	5.9
g	duties apart from SCE		

Page	Descriptor	Estimate	Standard Error
32	Percentage of SCE teachers in public elementary schools with non-teaching administrative duties	53	6.1
32	Percentage of Chapter 1 teachers in public elementary schools with other teaching duties apart from Chapter 1	36	2.9
32	Percentage of Chapter 1 teachers in public elementary schools with non-teaching administrative duties	45	3.0
34	Percentage of SCE teachers in public elementary schools who have the assistance of aides	49	6.1
34	Percentage of Chapter 1 teachers in public elementary schools who have the assistance of aides	52	3.0
34	Percentage of aides who assist SCE teachers in public elementary schools who have:		
	no degree	43	10.7
	less than 4 years	26	9.5
	bachelors' degree	3	3.7
	beyond BA	0.15	1.0
34	Percentage of aides who assist Chapter 1 teachers in public elementary schools who have:		
	no degree	71	4.6
	less than 4 years	20	4.0
	bachelors' degree	6	2.6
	beyond BA	0	0.3
34	Percentage of SCE teachers in public elementary schools who decide what skills aides will address	99	2.4
34	Percentage of SCE teachers in public elementary schools who decide what materials aides will use	91	6.4
34	Percentage of Chapter 1 teachers in public elementary schools who decide what skills aides will address	97	1.9

Page	Descriptor	Estimate	Standard Error
34	Percentage of Chapter 1 teachers in public elementary schools who decide what materials aides will use	93	2.7
38	Percentage of regular teachers in public elementary schools who report their SCE students miss regular reading instruction when they participate in SCE	54	13.7
38	Median number of students in SCE reading instructional group by poverty		
	0 - 15 percent poor	2	0.9
	15.1 - 30 percent poor	5	3.0
	30.1 - 50 percent poor	6	0.3
	50.1 - 100 percent poor	5	2.3
38	Median number of students in Chapter 1 reading instructional group by poverty		
	0 - 15 percent poor	4	0.6
	15.1 - 30 percent poor	4	2.1
	30.1 - 50 percent poor	4	1.0
	50.1 - 100 percent poor	4	1.1